THE SEVEN COLONIES OF AUSTRALASIA.



Printed at the Department of Lands, Sydney, N. S. W.
1893

No of Lith. D·93·20

A

STATISTICAL ACCOUNT

OF THE

SEVEN COLONIES OF AUSTRALASIA,

BY

T. A. COGHLAN,
GOVERNMENT STATISTICIAN OF NEW SOUTH WALES.

WITH MAP AND DIAGRAMS.

Sydney:
CHARLES POTTER, GOVERNMENT PRINTER.
E. A. PETHERICK & CO., GEORGE-STREET, AND AT MELBOURNE, ADELAIDE, AND LONDON.
1893.

PREFACE.

THE information contained in former issues of this work has been revised and brought down to the most recent date, and the results of the General Census, taken on the 5th April, 1891, are here published for the first time.

Every care has been taken to ensure accuracy, the figures and other details being taken from the latest records of the Colony dealt with.

Government Statistician's Office,
Sydney, 23 June, 1893.

CONTENTS.

	Page.
Political Divisions	1
Areas and Boundaries	8
Climate	13
Shipping	22
Commerce	36
Railways	66
Post and Telegraph	86
Parliaments	101
Defence	110
Education	120
Religion	138
Population	145
Agriculture	175
Pastoral and Dairy Industry	221
Mineral Resources	243
Food Supply and Cost of Living	282
Employment and Production	292
Local Government	315
Finance	324
Private Wealth	378
Land and Settlement	384
Social Condition	428

Map of Australasia ... ... Facing title page.

POLITICAL DIVISIONS.

THE Seven Colonies of Australasia, which now possess a population of nearly four millions, and a degree and distribution of material wealth scarcely parallelled by any other community on the globe, were unknown and undreamt of a little more than a century ago. It is the object of these pages to present a short account of the magnificent development to which these infant States have already attained, and to show in reference to the various elements of prosperity which go to build up a nation, their importance, not only as compared with one another, but also as regards the world at large.

Date of First Settlement in each Colony.

The earliest attempt at settlement in Australasia was the foundation of the Colony of New South Wales, which took place in 1788. Colonisation was extended to Tasmania in 1804, to Western Australia in 1829, to Victoria in 1834, to South Australia in 1836, to New Zealand in 1840, and in 1842 the district of Moreton Bay, in Queensland, was proclaimed open to free settlement, although as far back as 1825, this locality had been used as a penal settlement. Originally the colonies now known as Victoria and Queensland, formed part of New South Wales, while Western Australia, Tasmania, and New Zealand were, prior to being proclaimed separate colonies, dependencies of New South Wales. South Australia, from the date of first permanent settlement was established a separate Colony.

NEW SOUTH WALES.

The first settlement in New South Wales, the oldest Colony of the group, was effected by an expedition under the command of Captain Arthur Phillip, who landed at Botany Bay on 19th January, 1788, and formally took possession of the whole continent. Botany Bay being found unsuitable for the purpose the fleet was brought round to Port Jackson, and the city of Sydney founded on the 26th January of the same year. New South Wales was proclaimed a Colony on the 7th of the following month, and its boundaries were defined as extending from Cape York, the northern extremity of Queensland, 10° 37′ south latitude, to South East Cape, the most southerly point of Tasmania, 43° 39′ south latitude, and from the 135th degree of east longitude, to the east coast, including adjacent islands. The boundaries thus defined include the whole of the territories now known as New South Wales, Queensland, Victoria, Tasmania, and about half of the area of South Australia. Though the Colony was originally a penal settlement, free immigration existed from the first, and, after the abolition of transportation in 1840, all traces of the penal element were rapidly lost. The Constitution Act of New South Wales was assented to on the 16th July, 1855, proclaimed on the 24th November of the same year; and the first representative Parliament was opened on the 22nd May, 1856. The boundaries of the Colony at the date of proclamation included that portion of the continent now known as Queensland, but were exclusive of Victoria, which had been made a separate Colony in 1851.

Limits of the Colony.

TASMANIA.

Tasmania, formerly known as Van Diemen's Land, was colonised from New South Wales, having been intended to serve the purpose of a subsidiary penal settlement. Lieutenant Bowen, in charge of an expedition despatched from Sydney, took possession of the island on the 12th September, 1803, and formed a settlement on the east bank of the Derwent River, at Risdon; but the actual commencement of colonisation dates from February, 1804, when Lieutenant-Colonel Collins established himself at Sullivan's

Cove, at the site of the present city of Hobart. The Government was administered from Sydney until the year 1825, when, in the month of December, Van Diemen's Land was duly constituted an independent province. In May, 1853, it was officially announced that transportation had ceased, and in the following year the name of the Colony was changed from Van Diemen's Land to Tasmania. The Royal assent to the existing Constitution Act was proclaimed on the 24th October, 1855, and the first representative Parliament was opened on the 2nd December, 1856.

WESTERN AUSTRALIA.

The foundation of the Colony of Western Australia dates from the year 1826, when Major Lockyer landed at Albany in charge of an expedition from Sydney, consisting of a detachment of the 39th Regiment, and a number of prisoners. In 1827 Captain Stirling arrived in H.M.S. "Success," and explored the Swan River with a view to establishing a permanent settlement on its banks, and in June, 1829, Captain Freemantle landed near its mouth, and in the same year the town of Perth was founded. The Colony was known originally as the Swan River settlement; it was made a separate Colony on the 1st June, 1829, Captain Stirling being appointed the first Governor. Western Australia remained a Crown Colony under the direct control of the British Government until 20th October, 1890. The present Constitution Act of Western Australia was assented to on the 15th August, 1890; it was proclaimed on 21st October, and the first representative Parliament was opened on the 30th December, in the same year.

VICTORIA.

The first attempt to settle Victoria was made in 1803. On the 7th October of that year Lieutenant-Colonel Collins arrived from England with the intention of founding at Port Phillip a convict settlement similar to that which had been established at Sydney. The expedition landed on the shores of Port Phillip, near Sorrento, and several explorations of the country were made, but in the course of a few months the attempt at colonisation was abandoned, as the place was believed to be unsuitable for a settlement. For twenty years the District of

Port Phillip, as it was called, continued to be neglected. In 1824 Hume and Hovell undertook an exploration of the territory, which they reached overland from Sydney, and in 1826 another expedition, under Captain Wetherall was sent from Sydney to form a settlement, but returned by order of Governor Darling, after one year's trial, although the reports of Hume and Hovell, and the officers of the military, were favourable to the occupation being continued. The first permanent settlement took place in 1834 at Portland Bay, by the Messrs. Henty. In May, 1835, John Batman arrived at Port Phillip, from Launceston, Tasmania, and obtained from the aborigines tracts of land covering an area of 600,000 acres on the shores of Port Phillip and the banks of the Yarra, but the grants were afterwards disallowed by the Imperial Government. In August of the same year, another party under the leadership of J. P. Fawkner, also from Launceston, arrived in the Yarra and formed a settlement on the site now occupied by the city of Melbourne. In 1836, Sir Richard Bourke, then Governor of New South Wales, despatched Mr. Stewart from Sydney, with the title of "Superintendent of the District of Port Phillip," to establish a regular Government, and Captain Lonsdale arrived soon afterwards with a party of soldiers as well as the necessary civil officials. In 1837 the Governor of New South Wales arrived from Sydney, and gave the name of Melbourne to the new settlement. Port Phillip was separated from the mother Colony on the 1st July, 1851, and became an independent Colony under the name of Victoria. The Constitution Act of Victoria was proclaimed on the 23rd November 1855, and the first representative Parliament was opened on the 21st November, 1856.

SOUTH AUSTRALIA.

South Australia was colonised in the year 1836, by immigrants sent from England, under the auspices of the South Australian Colonisation Company. Until a site for the capital was chosen the immigrants were landed at Kangaroo Island. Colonel Light, who was sent out to select the site for the settlement, arrived in August, 1836, and, after examining Nepean Bay, Port Lincoln,

and Encounter Bay, decided upon establishing the capital where Adelaide now stands. Captain Hindmarsh, the first Governor, arrived at the close of the same year, and proclaimed the Colony on the 28th December. At this date, the northern boundary of the Colony was fixed at the 26th parallel of south latitude, which remained the limit of the Colony till July, 1863, when the boundary was extended northward to the seaboard. The Act granting Responsible Government was proclaimed on the 24th October, 1856, and the first representative Parliament was opened on the 22nd April, 1857.

The Northern Territory.

In 1831 a settlement was established by the Imperial Government at Port Essington, under Sir Gordon Bremer. It was principally used as a military post, and as a harbour of refuge for distressed vessels, but after an occupation of nineteen years it was abandoned. In 1862 Mr. John M'Douall Stuart, a South Australian explorer, succeeded in crossing the continent from Adelaide to Adam Bay on the north coast. He represented the country as suitable for settlement, and application was accordingly made to the Imperial Government for permission to annex the whole of the territory lying between the 26° of south latitude, and the seaboard, and the meridians of 129° and 138° east longitude. This tract of territory was formally granted to South Australia in July 1863, and is now known as the Northern Territory of South Australia. In 1864 the first colonising expedition to the Northern Territory was despatched from Adelaide, a settlement was established at Escape Cliffs, Adam Bay, but the locality being found unsuitable, the colonists in 1870, removed to Port Darwin, which has since remained the official centre. The administration of the territory is under the control of a Government resident, who is directly responsible to the authorities of South Australia.

New Zealand.

In 1839 a company organised in England, styled the "New Zealand Land Company," despatched a preliminary expedition to New Zealand for the purpose of treating with the natives for

the purchase of land. They arrived in September of the same year, and established themselves at Port Nicholson, and on January 21st, 1840, the first body of immigrants arrived. On January 29th, Captain Hobson, R.N., arrived at the Bay of Islands, and on the following day the islands were placed under British rule, and became a dependency of New South Wales. On May 21st of the same year the whole of the islands were declared under the sovereignty of Great Britain, and on the 3rd May, 1841, New Zealand was established a separate Colony. Five immigrant ships arrived in 1840, and settlements were made at Wellington and Auckland. By the treaty of Waitangi, which was signed on February 5th, 1840, the native chiefs ceded the sovereignty of the islands to the British Crown. Disturbances, however, soon occurred between the Maoris and the white settlers, and for about a quarter of a century matters were in a more or less unsettled state. The chief events may be thus summarised:—The Waira massacres occurred in June, 1843; rising headed by Honi Heki in July, 1844; rebellion of Wiremu Kingi in March, 1860; general war with the Maoris commenced in 1863; serious British reverses, including the Gate Pah disaster, in 1864; outbreak of the Hau-hau heresy in March, 1865; death of the chief, William Thompson, which practically closed the war, in 1867; rebellion under Te Kooti in November, 1868, which was not finally quelled until July, 1870; submission of the Maori King to the British Government in February, 1875. Constitutional Government was conferred on New Zealand in 1853, and a system by which the local governing power was vested in Provincial Councils, presided over by elective superintendents, continued till November 1876, when it was abolished by an Act of the General Assembly, and Parliament took over the administration of all affairs other than local. The Constitution provides for two Houses of Legislature, as in the other Australasian colonies. The first session of the General Assembly was opened on the 27th May, 1854, but the members of the Executive were not responsible to Parliament. The first Ministers under a

system of Responsible Government were appointed on the 18th April, 1856. In February, 1865, Wellington was established as the seat of Government, and has remained so ever since.

QUEENSLAND.

Queensland, like Victoria, is an offshoot of New South Wales. In 1825 the first convict establishment was formed at Eagle Farm, in the Moreton Bay district. The penal settlement came to an end in the year 1842, and the district was proclaimed open to free settlement. From that date to December, 1859, the territory was under the control of the New South Wales Government, the local administration being entrusted to a Government resident. Its separation from New South Wales took place in 1859, and its Constitution was proclaimed on the 10th December of that year. The first representative Parliament was opened on the 29th May, 1860.

AREAS AND BOUNDARIES.

THE Australasian Colonies comprise the continent of Australia, the adjacent island of Tasmania, and the islands of New Zealand. The group is politically subdivided into seven Colonies, which, with the area of each, are as follow :—

Colony.	Area.	
	In acres.	In square miles.
New South Wales	198,848,000	310,700
Victoria	56,245,760	87,884
Queensland	427,838,100	668,497
South Australia	578,361,600	903,690
Western Australia	678,400,000	1,060,000
Australia	1,939,693,460	3,030,771
Tasmania	16,778,000	26,216
New Zealand	66,861,440	104,471
Australasia	2,023,332,900	3,161,458

Comparative area of Australasia.

The British Empire, exclusive of territories under protectorates and spheres of influence, extends over an area of 9,114,700 square miles, so that more than one-third of its area is embraced within the limits of the seven colonies. Australasia is more than twenty-six times as large as the United Kingdom, more than fifteen times as large as France, more than half as large again as Russia in Europe, and almost equal in extent to the continent of Europe or to the United States of America.

AUSTRALIA.

The mainland of Australia lies between 10° 39′ and 39° 11½′ south latitude, and the meridians of 113° 5′ and 153° 16′ east

longitude. Its greatest length is 2,400 miles from east to west, and its greatest breadth, 1,971 miles from north to south. Its area may be approximately stated at 3,030,771 square miles, and its coast line 8,850 miles, equal to 1 mile to each 342 square miles of land, the smallest proportion of coast shown by any of the continents. Tasmania lies to the south of the main land; Bass' Straits, which separates the island from Victoria, is about 150 miles in width. New Zealand is opposite the south-eastern coast of Australia, the width of ocean intervening, known as the Tasman Sea, is about 1,100 miles.

New South Wales lies principally between the 29th and 36th parallels of south latitude, and between the 141st and 153rd meridians of east longitude. The length of the Colony, from Point Danger on the north to Cape Howe on the south, is 680 miles. From east to west, along the 29th parallel, the breadth is 760 miles; while diagonally, from the south-west corner—where the Murray passes into South Australia—to Point Danger, the length reaches 850 miles. The seaboard extends over 700 miles. No islands of importance belong to New South Wales. Lord Howe Island, which lies some 400 miles north-east of Sydney, is a dependency of the Colony, while Norfolk Island, though under the administration of the Governor, does not belong to the Colony. NEW SOUTH WALES.

Victoria is situated between the 34th and 39th parallels of south latitude, and the 141st and 150th meridians of east longitude. The dividing line between Victoria and South Australia was supposed to be fixed on the 141st meridian of east longitude, but through an error in survey the present recognised boundary falls about $1\frac{1}{2}$ miles west of the 141st meridian. The error is against South Australia and the authorities of that Colony have been demanding for many years a re-adjustment of territory, but there seems little prospect of the present arrangement being disturbed. The extreme length of Victoria from east to west is 420 miles, and the breadth 250 miles. The coast line is about 600 miles. VICTORIA.

QUEENSLAND.

Queensland lies between the 11th and 29th parallels of south latitude, and the 138th and 153rd meridians of east longitude. The boundary line separating Queensland from South Australia extends northwards along the 141st meridian of east longitude as far as the 26th parallel of south latitude and from thence along the 138th meridian of east longitude to the seaboard. This line also requires re-adjustment, the present reputed boundary being in all probability too far eastward. The greatest length from north to south is 1,300 miles, and the breadth, 800 miles. The coast line is about 2,550 miles. The coast of Queensland in some parts is studded with islands. The largest are Stradbroke and Moreton on the south-east coast, while Thursday Island on the far north coast is an important place of call, and is now being fortified as one of the lines of defence for the colonies of the eastern seaboard.

NEW GUINEA.

The island of New Guinea lies close to the northern extremity of Queensland, being separated from the mainland by Torres' Straits. It is jointly occupied by the Dutch, English, and German Governments. The British colony of New Guinea, embraces all that group of islands lying within the 141st and 155th meridian of east longitude and the 5th and 12th parallels of south latitude. The Government is vested in an administrator and an Executive Council; toward the expenses of Government the three colonies on the eastern seaboard of Australia each contribute £5,000 annually. By an Act passed in 1887, Queensland engaged for ten years to hold itself primarily responsible for the whole amount of this subsidy. The area of British New Guinea is estimated to be 90,000 square miles and the population 350,000. Information relating to this island and also the British colony of Fiji will be found in the appendices.

SOUTH AUSTRALIA.

South Australia extends from the 11th to the 38th parallels of south latitude, and from the 129th to the 141st meridians of east longitude. The province of South Australia, properly so called, lies between the 38th and 26th parallels of south latitude,

and the 141st and 129th meridians of east longitude; the northern territory is bounded by the 26th and 11th parallels of south latitude, and the 129th and the 138th meridians of east longitude. The greatest length of the Colony from north to south is 1,850 miles, and the width, 650 miles, with a seaboard of 2,000 miles, of which about 900 miles are washed by the Indian Ocean, the Arafura Sea, and the waters of the Gulf of Carpentaria. The most important islands belonging to the Colony are Kangaroo Island on the south coast, 85 miles long and 30 broad, and Melville Island, off Port Darwin, on the northern coast. The island last named was settled under Government expedition from Sydney as far back as 1824.

WESTERN AUSTRALIA.

Western Australia consists of the country between the 14th and 35th parallels of south latitude, and the 113th and 129th meridian of east longitude. The greatest length north and south is 1,450 miles, and the width from east to west 850 miles. The coast line is about 3,000 miles.

TASMANIA.

Tasmania is an island situated about 150 miles south of Victoria, from which it is separated by Bass' Strait. It lies between 40° 33′ and 43° 39′ south latitude, and the meridians of 144° 39′ and 148° 23′ east longitude. Its greatest length from north to south is 210 miles, and its greatest breadth from east to west is 200 miles. There are several small islands belonging to Tasmania. Flinders' Island, in Bass' Strait, has an area of 513,000 acres, and King's Island, the chief of the north-west group contains 272,000 acres. Including the adjacent islands, the area of Tasmania is 26,216 square miles.

NEW ZEALAND.

New Zealand is to the east of Australia; its nearest point to the mainland being Cape Maria van Diemen, which is about 1,100 miles from Sugar Loaf Point, in New South Wales. New Zealand and its dependencies lie between the 33rd and 53rd parallels of south latitude, and between 166° 30′ east longitude and 173° west longitude. The waters known as the Tasman Sea

separate the Colony of New Zealand from the continent of Australia.

North Island. The North Island, or New Ulster, has a length of about 515 miles, by a breadth of about 250 miles; its area is estimated at 44,467 square miles, and its coast line at 2,200 miles. Wellington, the seat of Government, is at the southern extremity of this island.

South Island. The South, or as it is officially called the Middle Island, or New Munster, has a length of about 525 miles by a breadth of about 180 miles. Its area is 58,525 square miles, and its coast-line measures 2,000 miles.

Stewart Island. Stewart Island, or New Leinster, lies off the southern extremity of South Island and has an area of 665 square miles; its greatest length is 30 miles by a breadth of 25 miles.

Kermadic Islands. In 1887 a proclamation was made declaring the Kermadic Islands, lying between 29th and 32nd parallel, and the 177th and 180th meridians of west longitude, part of the Colony of New Zealand. A protectorate is exercised by the Imperial Government over the Cook Islands or Hervey Group. The British resident is appointed on the recommendation of the New Zealand Government which also defrays the cost of the administration.

Area of New Zealand. Including the Chatham Islands, the Auckland Islands, the Campbell Islands, the Bounty Islands, and many others which are dependent, the total area of the Colony of New Zealand is estimated at 104,471 square miles.

CLIMATE.

THE tropic of Capricorn divides Australia into two parts; of these the northern or inter-tropical portion contains 1,176,000 square miles, comprising half of Queensland, the Northern Territory of South Australia, and the north-western divisions of Western Australia. The whole of New South Wales, Victoria, New Zealand, and Tasmania, South Australia proper, half of Queensland, and more than half of Western Australia, comprising 1,985,500 square miles, are without the tropics. In a region so extensive very great varieties of climate are naturally to be expected, but it may be stated as a general law that the climate of Australasia is milder than that of corresponding lands in the northern hemisphere. During July, which is the coldest month in these latitudes, one half of Australasia has a mean temperature ranging from 40° to 64°, and the other half from 64° to 80°. The following are the areas subject to the various average temperatures during the month referred to :—

Tropical Australia.

Extra-tropical Australia.

Average winter temperature.

Temperature, Fahrenheit.	Area in square miles.
35° — 40°	300
40° — 45°	39,700
45° — 50°	88,000
50° — 55°	635,300
55° — 60°	701,300
60° — 65°	858,200
65° — 70°	529,700
70° — 75°	284,500
75° — 80°	24,500

Average summer temperature.

The temperature during December ranges from 50° to above 95° Fah. ; half Australia having a mean temperature below 83°. Dividing the land into zones of average summer temperature, the following are the areas which would fall to each :—

Temperature, Fahrenheit.	Area in square miles.
50° — 55°	300
55° — 60°	66,300
60° — 65°	111,300
65° — 70°	74,300
70° — 75°	373,600
75° — 80°	453,000
80° — 85°	756,500
85° — 90°	588,400
90° — 95°	602,400
95° and over.	135,400

Extreme heat of Northern Australia.

Judging from the figures just given it must be conceded that a considerable area of the continent is not adapted for colonisation by European races. The region with a mean summer temperature in excess of 95° Fahr. is the interior of the Northern Territory of South Australia north of 20th parallel; and the whole of the country, excepting the seaboard, lying between the meridians of 120° and 140° and north of the 25th parallel has a mean temperature in excess of 90° Fahr.

Climate of the coast of New South Wales.

Climatically as well as geographically New South Wales is divided into three marked divisions. The coastal region, which is between the parallels of 28° and 37°, south latitude, has an average summer temperature ranging from 78° in the north to 67° in the south, with a winter temperature of from 59° to 52°. Taking the district generally the difference between the mean summer and mean winter temperature may be set down as averaging not more than 20°, a range smaller than is found in most other parts of the world. The famed resorts on the Mediterranean seaboard bear no comparison with the Pacific slopes of New South Wales, either for natural salubrity or for the comparative mildness of the summer and winter.

Climate of Sydney.

Sydney, situated as it is midway between the extreme points of the Colony, in latitude 33° 52′ S., has a mean temperature of 63°, corresponding with that of Barcelona, the great maritime city of Spain, and of Toulon, in France; the former being in latitude 41° 22′ N., and the latter in 43° 7′ N. At Sydney the mean summer temperature is 71°, and that of winter 54°. The range is thus 17° Fahr. At Naples, where the mean temperature for the year is about the same as at Sydney, the summer temperature reaches a mean of 74·5°, and the mean of winter is 47·5°, with a range of 27°. Thus the summer is warmer, and the winter much colder, than at Sydney. The highest temperature in the shade ever experienced in Sydney was 106·9°, and the lowest winter temperature was 36·8°, giving a range of 70°. At Naples the range has been as great as 81°, the winter minimum falling sometimes below the freezing point. The mean temperature of Sydney for a long series of years was, spring 62°, summer 71°, autumn 64°, and winter 54°.

Climate of the table-land.

Passing from the coast to the table-land, a distinct climatic region is entered. Cooma, with a mean summer temperature of 66° and winter 43°, may be taken as illustrative of the climate of the southern table-land, and Armidale of the northern. The first-named town stands in the centre of the Monaro plains, at an elevation of 2,640 feet above sea-level, and enjoys a summer as mild as either London or Paris, while its winters are far less severe. On the New England table-land, the climate of Armidale and other towns may be considered as nearly perfect as can be found. The yearly average temperature is scarcely 57°, while the summer only reaches 69°, and the winter falls to 44°, a range of temperature approximating closely to that of the famous health resorts in the south of France.

Climate of the Western Division.

The climatic conditions of the western districts of the Colony are entirely different from those of the other two regions, and have often been cited as disagreeable. Compared with the equable temperature of the coastal district, or of the table-land, there may

appear some justification for such a reputation, but only by comparison. The climate of the great plains, in spite of the heat of part of the summer, is very healthy. The town of Bourke may be taken as an example. Seated in the midst of the great plain of the interior, it illustrates peculiarly well the defects, as well as excellencies, of the climate of the whole region. Bourke has exactly the same latitude as Cairo, yet its mean summer temperature is 1·3° less, and its mean annual temperature 4° less than is the case in the Egyptian city. New Orleans also lies on the same parallel, but the American city is 4° hotter in summer. As regards winter temperature, Bourke leaves little to be desired. The mean winter reading of the thermometer is 54·5°, and accompanied as this is by clear skies and an absence of snow, the season is both refreshing and enjoyable.

Rainfall of New South Wales.

The rainfall of New South Wales varies from an annual average of 64 inches at the Tweed Heads, on the northern coast, to less than 12·5 inches in the Trans-Darling country. The coastal districts average about 45 inches of rain per annum; on the tableland the mean rainfall is 30·84 inches, but in the western interior it is as low as 17 inches. The average rainfall of Sydney for the last thirty-three years was 49 inches.

The Victorian climate.

The climate of Victoria does not differ greatly from that of New South Wales; the heat, however, is generally less intense in summer and the cold greater in winter. Melbourne, which stands in latitude 37° 50′ S., has a mean temperature of 57·3°, and therefore corresponds with Bathurst in New South Wales, Washington, in the United States, Madrid, Lisbon, and Messina. The difference between summer and winter is, however, less at Melbourne than at any of the places mentioned. The mean temperature is 6° less than that of Sydney and 7° less than that of Adelaide,—the result of a long series of observations being :—spring, 57°; autumn, 58·7°; summer, 65·3°; winter, 49·2°. The highest recorded temperature in the shade at Melbourne was 110·7° and the lowest was 27°.

Climate of Ballarat and Bendigo.

Ballarat, the second city of Victoria, about 100 miles westerly from Melbourne, and situated at a height of about 1,400 feet above sea-level, has a minimum temperature of 29° 0′, and a maximum of 104° 5′, the average yearly mean being 54° 1′. Bendigo, which is about 100 miles north of Melbourne, and 700 feet above the level of the sea, has a rather higher average temperature, ranging from 31° 2′ to a maximum of 106° 4′, the average yearly mean being 59° 4′. At Wilson's Promontory, the most southerly point of Australia, the minimum heat is 38° 6′, and the maximum 96° 4′, the average yearly mean being 56° 7′.

Rainfall of Victoria.

During the year 1891, the rainfall at Melbourne amounted to 26·73 inches, and for the last twenty-seven years it averaged 25·51 inches, with an average of 131 days during the year in which rain fell. At Bendigo, 19·79 inches fell, and 29·22 at Portland. Among the mountain ranges in Gippsland, the rainfall averaged 36 inches.

The climate of Queensland.

As about one half of the Colony of Queensland lies within the tropics, it is but natural to expect that the climate would be very warm. The temperature, however, has a less daily range than that of other countries under the same isothermal lines. This circumstance is due to the sea breezes which blow with great regularity, and temper what would otherwise be an excessive heat. The hot winds which prevail during the summer in some of the other colonies are unknown in Queensland. Of course in a territory of such large extent as that of Queensland there are many varieties of climate, and the heat is greater along the coast than on the elevated lands of the interior. In the northern parts of the Colony the high temperature is very trying to persons of European descent.

Temperature of Queensland.

The mean temperature at Brisbane, during December, January, and February, is about 76° while during the months of June, July, and August, it averages about 60°. Brisbane, however, is situated near the extreme southern end of the Colony, and its average temperature is considerably less than that of many of the

towns further north. Thus the winter in Rockhampton averages nearly 65°, while the summer heat rises almost to 85°, and at Townsville and Normanton the average temperature is still higher.

Rainfall in Queensland.

The average rainfall of Queensland is high, especially along the northern coast, where it ranges from 60 to 70 inches per annum. Near Brisbane about 50 to 60 inches of rain fall annually, and even on the plains of the interior from 20 to 30 inches usually fall every year. During 1891 as much as 42 inches of rain fell in Brisbane, the number of wet days being 143.

Climate of South Australia.

South Australia, extending as it does over about 26° of latitude, naturally presents considerable variations of climate. The southern portions have a climate greatly resembling that of the coast of Italy. The coldest months are June, July, and August, during which the temperature is very agreeable, averaging for a series of years 53° 6′, 51° 7′, and 54° for those months respectively. On the plains slight frosts occasionally occur, and ice is sometimes seen on the highlands. The summer is the only really disagreeable portion of the year. The sun at that season has great power, and the temperature frequently reaches 100° in the shade, with hot winds blowing from the interior. The weather on the whole is remarkably dry. At Adelaide there are on an average 120 rainy days per annum; during the last thirty-four years the mean rainfall has been 20 inches per annum, while further north the quantity recorded was considerably less. The country is naturally very healthful, and in evidence of this it may be mentioned that no great epidemic has ever visited the Colony.

Climate of the Northern Territory.

The climate of the Northern Territory of South Australia is extremely hot, except on the elevated table-lands. Altogether the temperature of this part of the Colony is very similar to that of Northern Queensland, and the climate is equally unfavourable to Europeans. It is a fact worthy of notice that the malarial fevers which are so troublesome to the pioneers of the northern parts of Australia almost, and in some cases entirely, disappear after the land has been settled and consolidated by stock. The rainfall in

the extreme north, especially in January and February, is exceedingly heavy. The average yearly rainfall in the coast districts is about 63 inches.

The seasons in Western Australia.

Western Australia has practically only two seasons. The winter, or wet season, commences in April and ends in October; the summer, or dry season, comprises the remainder of the year. During the wet season frequent and heavy rains fall, and thunderstorms with sharp showers occur in the summer. The extremes of drought and flood experienced in the other colonies are almost unknown in Western Australia, but the north-west coast is sometimes visited with hurricanes of great violence during the summer months. In the southern and old settled parts of the Colony the mean temperature is about 64°, but in the more northern portions the heat is excessive, though the dryness of the atmosphere makes it superior to most tropical climates. At Perth in 1891 the mean temperature was 64°, the maximum being 107° and the minimum 36°, the rainfall for the same year was 30·33 inches. Although the heat is very great during three months of the year, the nights and mornings are almost always cool, and through there being so little moisture in the air, no danger arises from camping out.

The climate Tasmania.

Tasmania, protected as it is by its geographical position, and by the tempering influence of the surrounding ocean, from extremes of heat or cold, enjoys an exceedingly genial climate. The greater part of the island in the settled regions is characterised by a mild and equable temperature, ranging between the extremes of 20° to 44° in winter to 78° to 96° in summer. Spring and autumn are the most pleasant seasons of the year, especially the latter, when the mean reading of the thermometer is about 57°. The mean temperature of Hobart for the last 50 years was 55°. The richness of its flora is an evidence of the genial nature of the climate of Tasmania, while the purity of its atmosphere is proved by the small proportion of zymotic diseases recorded in the bills of mortality. The hot winds of the continent of Australia are felt in

the northern parts of Tasmania only, and, even there, are greatly reduced in temperature by their passage across Bass' Straits. Generally speaking, all through the summer months there are alternate land and sea breezes which tend to cool the atmosphere even in the hottest days. The climate of Tasmania is fresh and invigorating, and is much recommended as a restorative for those whose constitutions have been enfeebled by residence in hotter climes. Large numbers of tourists in search of health visit the island every summer. The rainfall, except in the mountain districts, is moderate and regular. The average downfall at Hobart for a long series of years was 22·93 inches, with 143 wet days per annum.

Climate of New Zealand.

The climate of New Zealand is in some respects similar to that of Tasmania, but the changes of weather and temperature are often very sudden. As the Colony extends over more than 10 degrees of latitude it possesses a considerable amount of variety in regard to climate. The North Island, in this respect, is somewhat similar to Rome, Montpellier, and Milan, while the Middle or Southern Island more resembles Jersey, in the Channel Islands. The mean annual temperature of the North Island is 57°, and of the Middle Island 52°, while the yearly average of the whole Colony for each season is as follows :—spring 55°, summer 63°, autumn 57°, and winter 48°. The mean temperature of New Zealand is lower than that of similar latitudes in Europe, though higher than is experienced in America on corresponding parallels. The mean temperature of the South or Middle Island is less by about 5° than that of the North Island. Snow very seldom lies on the ground at the sea-level in the North Island, and only occasionally in the South Island. The summits of Ruapehu, the highest mountain in the North Island, and of the great mountain chain in the South Island, are covered with perpetual snow from an altitude of 7,500 feet above the level of the sea. Ice is occasionally seen in winter time in all parts of New Zealand. The whole Colony is subject to strong breezes which frequently culminate in gales. The rainfall during 1891 was heavier in the

North than in the South Island. At Auckland and Wellington in the North Island, the rainfall during 1891 was 36·04 inches and 35·125 inches, and the number of wet days 149 and 166 respectively, while at Te Aroha and Rotoru, districts south-east of Auckland, the rainfall during the same year was as heavy as 43·270 and 48·940 inches respectively. At Dunedin and Lincoln in the South Island the fall was 32·734 and 20·575 inches, and the number of wet days 151 and 98 respectively.

The following table illustrates the rainfall of Australasia :— Australasian rainfall.

Rainfall.	Rainfall area in square miles for each division.			
	Australia.	Tasmania.	New Zealand.	Australasia.
Under 10 inches ...	1,254,400	....	.....	1,254,400
10 to 20 ,, ...	867,200	9,440	.....	876,640
20 to 30 ,, ...	411,300	. .....	69,650	480,950
30 to 40 ,, ...	232,100	8,380	17,410	257,890
40 to 50 ,, ...	144,300	8,380	17,410	170,090
50 to 60 ,, ...	49,300	.....	.....	49,300
60 to 70 ,, ...	57,700	.....	....	57,700
Above 70 ,, ...	14,500	.....	.....	14,500
	3,030,800	26,200	104,470	3 161,470

SHIPPING.

Growth of Australasian shipping.

THE earliest date for which there is reliable information in regard to Australasian shipping is 1822. The growth of the trade of Australasia since then has been marvellous, and although the rate at which population has advanced, has been as large as could reasonably be expected, the growth of shipping has been even more rapid. Taking the whole period covered by the following table the increase of population has averaged about five per cent. yearly, while that of shipping has slightly exceeded seven per cent. The summary herewith gives the total tonnage which entered and cleared the various ports of the Colonies, including both foreign and intercolonial trade. Should any comparison be made between Australasia and other countries, the figures would have little significance, as the traffic between the various ports of the Colonies, which is included in the statement, becomes merely coastal trade when the whole of the Colonies are taken as one country. This distinction is kept in view throughout this chapter as well as in the succeeding one dealing with exports and imports :—

Year.	No. of Vessels.	Tonnage.	Year.	No. of Vessels.	Tonnage.
1822	268	147,869	1871	13,274	4,229,904
1841	2,576	552,347	1881	15,935	8,943,545
1851	5,340	1,088,108	1891	18,468	17,479,535
1861	10,316	2,828,484			

Tonnage entered and cleared.

In the year 1822 all the settlements on the mainland were comprised in the designation of New South Wales, and as late as 1859 Queensland formed part of the mother Colony. Thus an

SHIPPING

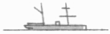
INWARDS AND OUTWARDS

1841



552,347 TONS

1822



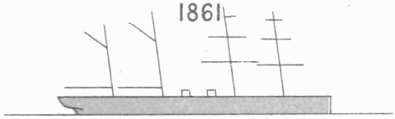
147,869 TONS

1851



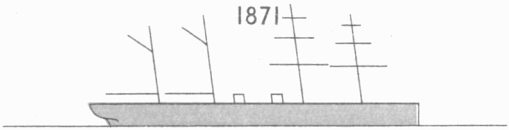
1,088,108 TONS

1861



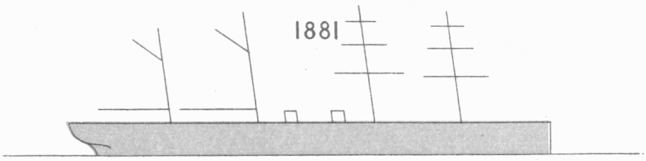
2,819,728 TONS

1871



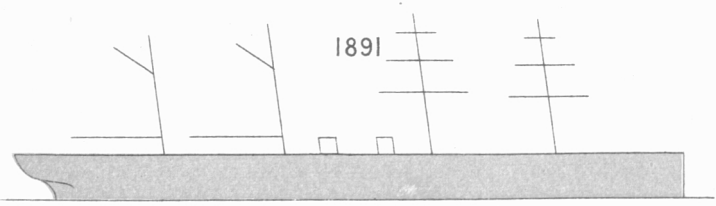
4,205,395 TONS

1881



8,943,545 TONS

1891



17,479,535 TONS

Printed at the Department of Lands, Sydney, N.S.W. 1893
N° of Lithograph D 83 11

exact distribution of tonnage can only be made subsequent to the year last named, and this is given in the following table :—

Colony.	1861.		1871.		1881.		1891.	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
New South Wales	2,718	745,696	4,014	1,500,479	4,357	2,786,500	6,121	5,694,236
Victoria	3,598	1,090,002	4,394	1,355,025	4,248	2,412,534	5,091	4,715,109
Queensland	215	35,982	415	93,236	1,803	882,491	1,170	997,118
South Australia	844	208,895	1,436	387,026	2,249	1,359,591	2,429	2,738,589
Western Australia	219	114,265	294	137,717	368	285,046	598	1,045,555
Tasmania	1,580	230,308	1,283	216,160	1,383	383,762	1,578	1,044,606
New Zealand.....	1,142	403,336	1,438	540,261	1,527	833,621	1,481	1,244,322
Australasia	10,316	2,828,484	13,274	4,229,904	15,935	8,943,545	18,468	17,479,535
Australasia (external)..	1,961	1,076,856	2,344	1,279,416	3,635	3,153,087	4,390	6,457,050

Australasian tonnage.

The tonnage of Australasia, as well as that of nearly all of the provinces individually, for the year 1891 is the highest on record, being about 12½ per cent. more than that of the previous year. This result is partly due to the circumstance that a large amount of goods remained unshipped at the close of 1890, owing to the maritime strike, which of necessity appears in the returns of 1891.

Average tonnage per vessel.

In the following tables the average tonnage of vessels trading with Australasia, and the daily movements of tonnage are given. The year 1861 is made the first point of comparison, the nature of the returns being such as to render it impossible to satisfactorily exclude the coastal trade from the general tonnage before that date. The average tonnage per vessel for each of the four periods stated was :—

1861	549
1871	546
1881	867
1891	1,471

The increase in the carrying capacity of vessels trading with Australasia is truly remarkable, especially since 1871. The change, however, is due, not so much to Australasian enterprise, as to the general tendency everywhere exhibited to substitute large and speedy steamships for the sailing vessels of former days.

Average daily movements of tonnage.

The following figures represent the average daily movements of foreign-going tonnage (entered and cleared) in Australasian ports at various periods:—

1861	2,950
1871	3,505
1881	8,639
1891	17,691

that is to say, thirty-eight vessels of 20,650 tons in the aggregate, entered or cleared every week during the year 1861, whilst in 1891 the average weekly shipping movement was 84 vessels, aggregating 123,837 tons.

Relative position of the Colonies.

The position which each colony occupied in 1881 is much the same as that held by it to-day, but as might naturally be expected the ratio of increase has been very different for the various colonies. Those least developed in 1881 show the greatest proportionate increase during the period, as the figures herewith demonstrate. The total external and intercolonial tonnage, inwards, for 1881 and 1891 was as follows:—

Colony.	1881.		1891.		Increase per cent., 1881-91.
	No.	Tonnage.	No.	Tonnage.	
New South Wales	2,254	1,456,239	3,021	2,821,898	94
Victoria	2,125	1,219,231	2,531	2,338,864	92
Queensland	936	455,985	607	502,794	10
South Australia	1,120	684,203	1,220	1,368,720	100
Western Australia	185	145,048	310	533,433	268
Tasmania	694	192,024	785	514,706	168
New Zealand	765	420,134	737	618,515	47
Australasia	8,079	4,572,864	9,211	8,698,930	90
Australasia (External)	1,910	1,695,244	2,232	3,339,205	97

The meaning of the increase shown above, so far at least as some of the colonies are concerned, is apt to be misunderstood; thus, the abnormal development of Western Australia should not be set down as due to the increased trade of that colony, but to the circumstance that one of its ports lies in the track of the large steam vessels trading between Europe and the Eastern Colonies; and this remark, to a minor extent, is applicable also to some of the more populous colonies. Increase of tonnage.

In the next table the combined external and intercolonial tonnage inwards and outwards, and the proportion claimed by each colony are given. It will be seen that New South Wales at both periods held the largest share of tonnage :—

olony.	Entered and Cleared.				Percentage of tonnage to each Colony.	
	1881.		1891.			
	No.	Tonnage.	No.	Tonnage.	1881.	1891.
New South Wales...	4,357	2,786,500	6,121	5,694,236	31·1	32·6
Victoria	4,248	2,412,534	5,091	4,715,109	27·0	27·0
Queensland.....	1,803	882,491	1,170	997,118	9·9	5·7
South Australia	2,249	1,359,591	2,429	2,738,589	15·2	15·6
Western Australia...	368	285,046	598	1,045,555	3·2	6·0
Tasmania.....	1,383	383,762	1,578	1,044,606	4·3	6·0
New Zealand	1,527	833,621	1,481	1,244,322	9·3	7·1
Australasia.....	15,935	8,943,545	18,468	17,479,535	100·0	100·0
Australasia (External)	3,635	3,153,087	4,390	6,457,050	...	...

In the foregoing tables the shipping passing from one colony to the other has been included with the tonnage to places outside

Australasia. In the following statement, however, reference is made only to the trade with the British Empire and foreign countries. These are, therefore, the figures which should be used if comparisons are instituted between Australasia and other countries :—

Trade with—	1861.		1871.		1881.		1891.	
	Number of Vessels.	Tonnage.	Number of Vessels.	Tonnage.	Number of Vessels.	Tonnage.	Number of Vessels.	Tonnage.
The United Kingdom—								
Inwards	387	308,711	305	294,321	768	999,403	967	1,863,664
Outwards	140	116,397	288	266,432	491	651,825	753	1,484,745
Total	527	425,108	593	560,753	1,259	1,651,228	1,720	3,348,409
British Possessions Outside Australasia—								
Inwards	232	101,442	320	133,127	623	393,234	511	536,879
Outwards	280	166,860	337	163,350	596	374,753	463	469,453
Total	512	268,302	657	296,477	1,219	767,987	974	1,006,332
Foreign Countries—								
Inwards	385	149,311	449	192,377	519	302,607	754	938,662
Outwards	537	234,135	645	229,809	638	431,265	942	1,163,647
Total	922	383,446	1,094	422,186	1,157	733,872	1,696	2,102,309
External Trade—								
Inwards	1,004	559,464	1,074	619,825	1,910	1,695,244	2,232	3,339,205
Outwards	957	517,392	1,270	659,591	1,725	1,457,843	2,158	3,117,845
Total External Trade	1,961	1,076,856	2,344	1,279,416	3,635	3,153,087	4,390	6,457,050

The tonnage to and from each of the divisions of the British Empire, as well as the leading foreign countries trading with

Australasia, is set forth in the following statement—no country whose trade is of any magnitude has been omitted :—

Countries.	1881.		1891.	
	Number of Vessels.	Tonnage.	Number of Vessels.	Tonnage.
British Empire—				
United Kingdom	1,259	1,651,228	1,720	3,348,409
India and Ceylon	167	272,199	142	286,319
Hong Kong	244	257,011	227	324,820
Cape Colony	133	54,949	72	66,211
Fiji	153	43,255	153	127,189
Other British Possessions	522	140,573	380	201,793
Total	2,478	2,419,215	2,694	4,354,741
Foreign Countries—				
France and New Caledonia	224	113,215	275	417,064
Germany	27	15,786	208	393,001
Netherlands and Java	67	35,719	51	74,843
Belgium	2	1,552	27	41,907
United States	294	301,246	484	597,210
China	81	53,996	34	33,135
Other Foreign Countries	462	212,358	617	545,149
Total	1,157	733,872	1,696	2,102,309
Total External	3,635	3,153,087	4,390	6,457,050

Difficulty in distinguishing external trade.

Some little difficulty is met with in distinguishing correctly the external tonnage for each colony, owing to the circumstance that steam vessels from Europe call at various colonial ports, and are credited to the first port of call, quite irrespective of the fact that little or none of the cargo may be destined for the colony to which the port belongs. Thus the returns of Western Australia for 1891 show external shipping entering inwards 284,276 tons, and 235,653 tons outwards, in all, 519,929 tons, a larger total than either Queensland or Tasmania, though the present importance of these colonies is very much greater than that of Western Australia. The following table gives the total of the other than Australasian tonnage entering and clearing at the ports of each colony; the

figures, however, should be taken in conjunction with the import and export statistics given in the next chapter :—

Colony.	Entered and Cleared.				Percentage of tonnage to each Colony.	
	1881.		1891.			
	No.	Tonnage.	No.	Tonnage.	1881.	1891.
New South Wales...	1,120	1,080,446	1,600	2,271,960	34·3	35·2
Victoria	626	737,272	759	1,330,557	23·4	20·6
Queensland.....	461	282,439	342	393,255	8·9	6·1
South Australia.....	541	479,231	760	1,175,447	15·2	18·2
Western Australia...	171	139,200	284	533,959	4·4	8·2
Tasmania	68	27,679	86	146,109	0·9	2·3
New Zealand	648	406,820	559	605,763	12·9	9·4
Australasia.....	3,635	3,153,087	4,390	6,457,050	100·0	100·0

Tonnage in ballast.

A peculiar feature of Australasian trade is the small and decreasing proportion of tonnage arriving or departing in ballast for places outside Australasia. Thus, in 1881 this description of tonnage amounted to 4·3 per cent. of the whole ; in 1891 the proportion was only 3·5 per cent., while in European and American countries of which there are available returns, the proportion varies from 13 to 36 per cent. The total tonnage inward and outward in ballast only for each period was :—

Colony.	Entered and Cleared.		Percentage of Tonnage in Ballast to Total External Tonnage of each Colony.	
	1881.	1891.		
	Tonnage.	Tonnage.	1881.	1891.
New South Wales.....	22,376	74,976	2·1	3·3
Victoria	12,841	27,417	1·7	2·1
Queensland.....	25,378	25,868	9·0	6·6
South Australia.....	28,590	40,907	6·0	3·5
Western Australia	10,399	14,030	7·5	2·6
Tasmania	4,553	11,816	16·4	8·1
New Zealand	30,622	30,650	7·5	5·1
Australasia.....	134,759	225,664	4·3	3·5

Varied resource of Australasia.

The reason why so small a proportion of Australasian shipping leaves in ballast is no doubt to be found in the large and varied

resources of the country, for when the staple produce—wool—is not available, cargoes of wheat, coal, and other commodities may be obtained. The percentage of tonnage in ballast to total inward and outward tonnage during 1890 for some of the principal countries of the world is given herewith :—

Country.	Proportion of Tonnage in Ballast to total Tonnage.	Country.	Proportion of Tonnage in Ballast to total Tonnage.
United Kingdom	16·7	Belgium	25·9
France	19·7	Netherlands	23·7
Germany	19·7	Norway and Sweden	35·7
Spain	22·1	United States	12·9
Italy	22·8		
Russia	34·1	Australasia (1891)	3·5

Intercolonial shipping.

The expansion of the intercolonial shipping has occurred step by step with the external trade of the colonies. New Zealand forms an exception to the rule, a circumstance due to the development of its resources having now reached such a point that the colony is in a position to trade directly with Great Britain, instead of, as formerly, indirectly by way of the ports of New South Wales and Victoria.

The following is a statement of the inward intercolonial tonnage :—

Colony.	Entered.			
	1881.		1891.	
	No.	Tonnage.	No.	Tonnage.
New South Wales	1,730	939,158	2,375	1,847,435
Victoria	1,733	780,633	2,067	1,542,369
Queensland	663	268,593	405	277,055
South Australia	837	412,493	778	690,488
Western Australia	95	74,020	155	242,004
Tasmania	654	175,439	724	409,147
New Zealand	457	227,284	475	351,227
Australasia	6,169	2,877,620	6,979	5,359,725

Position of New South Wales.

New South Wales, it will be seen, heads the list with more than one-third of the total intercolonial inward shipping—a position, doubtless in a large measure, due to the fact that many vessels which have discharged cargo in other Colonies come to New South Wales for cargoes for foreign ports. Victoria stands second to New South Wales for vessels inwards from other Colonies, but in regard to the outward intercolonial trade she stands first, as will be seen by the figures annexed:—

Colony.	Cleared.			
	1881.		1891.	
	No.	Tonnage.	No.	Tonnage.
New South Wales	1,507	766,896	2,146	1,574,841
Victoria	1,889	894,629	2,265	1,842,183
Queensland	679	331,459	423	326,808
South Australia	871	467,867	891	872,654
Western Australia	102	71,826	159	269,592
Tasmania	661	180,644	768	489,350
New Zealand	422	199,517	447	287,332
Australasia	6,131	2,912,838	7,099	5,662,760

Position of Victoria.

The position occupied by Victoria as compared with New South Wales in the table just given is peculiar, and arises from the necessity of many vessels arriving with cargoes being compelled to leave in ballast and seek outward freights in New South Wales, particularly at the port of Newcastle. A large proportion of the tonnage from Victoria to New South Wales is of ships in ballast requiring coal, not for Victoria only, but for places outside Australasia; these ships leaving Victorian ports are reckoned as intercolonial, but when entering outward at Newcastle they are of course cleared as engaged in foreign trade. The combined tonnage

inward and outward will be found in the following table, with the percentage due to each Colony. The figures are the totals of the two preceding tables :—

Colony.	Entered and Cleared.		Percentage of Tonnage to each Colony.	
	1881.	1891.		
	Tonnage.	Tonnage.	1881.	1891.
New South Wales	1,706,054	3,422,276	29·5	31·0
Victoria	1,675,262	3,384,552	28·9	30·7
Queensland	600,052	603,863	10·4	5·5
South Australia.....	880,360	1,563,142	15·2	14·2
Western Australia	145,846	511,596	2·5	4·6
Tasmania	356,083	898,497	6·2	8·2
New Zealand	426,801	638,559	7·3	5·8
Australasia	5,790,458	11,022,485	100·0	100·0

Steam and sailing tonnage.

The general tendency to substitute steamers for sailing vessels is very marked in the Australasian trade. Unfortunately the records of Queensland do not admit of a distinction being made between the two classes of vessels, nor do those of South Australia and New Zealand, except of later years. The following table shows the external steam tonnage of those colonies of which the returns are available. The figures include the vessels bound for intercolonial ports, as well as those for ports outside Australasia:—

Colony.	Entered and Cleared.		Percentage of Steam to Total Tonnage.	
	1881.	1891.	1881.	1891.
New South Wales.....	1,758,304	4,299,791	63·1	75·5
Victoria	1,787,861	4,091,057	74·1	86·8
South Australia.....	*.....	2,007,775	*.....	73·3
Western Australia	210,664	978,568	73·9	93·6
Tasmania	265,833	960,224	69·3	91·9
New Zealand	*.....	822,086	*.....	66·1

* Not obtainable.

The subjoined figures give like information for about the same period for some of the principal countries of the world :—

Country.	Percentage of Steam Tonnage to Total Steam and Sailing.		Country.	Percentage of Steam Tonnage to Total Steam and Sailing.	
	1881.	1890.		1881.	1890.
United Kingdom	67·7	84·2	Netherlands	74·4	91·5
France	69·5	87·4	Norway and Sweden.	41·0	66·0
Germany	70·8	86·7	United States	55·5	61·1
Italy	72·8	87·4			
Belgium	81·3	94·2	Australasia.....	68·6	79·8

Relative importance of ports.

The relative importance of the various ports of Australasia may be ascertained from an inspection of the table hereunder. Melbourne takes first place, but the figures quoted comprise the great ocean steamers, whose terminal port is Sydney, and which are counted in the homeward and outward voyages as twice entering and twice clearing at Port Phillip. Next comes Sydney, Port Adelaide, and Newcastle. The total tonnage inwards and outwards for all the principal ports of Australasia for 1881 and 1891 is given :—

Colony.	Port.	1881.	1891.
		Tons.	Tons.
New South Wales	Sydney.....	1,610,692	3,291,188
	Newcastle	1,127,238	1,844,842
Victoria	Melbourne	2,144,949	4,362,138
	Geelong	93,347	190,932
Queensland (including coastal tonnage).	Brisbane	406,032	855,993
	Townsville	205,886	544,470
	Rockhampton	207,706	471,837
	Cooktown.....	217,144	469,577
South Australia	Port Adelaide	1,078,920	1,990,938
	Port Pirie.....	33,325	321,781
	Port Darwin	90,100	170,642
Western Australia.....	Albany	219,902	931,502
	Freemantle	42,618	63,068
Tasmania	Hobart	204,007	646,683
	Launceston	138,657	293,537
New Zealand	Auckland...	238,886	345,183
	Wellington	119,243	293,451
	Bluff Harbour.....	91,592	196,540
	Lyttleton	167,151	161,387
	Dunedin	114,637	97,409

Total trade of principal ports

The above figures, as already explained, only partially represent the relative importance of the various ports. A better idea of their actual positions will be gained from the following table, which shows the value of the total trade, and the value to every ton of shipping in 1891, for the principal ports of each Colony:—

Colony.	Ports.	Total Trade.	Trade to each ton of Shipping.
		£	£
New South Wales	Sydney	35,377,745	10·2
	Newcastle	2,909,585	1·6
Victoria	Melbourne	31,508,051	7·2
Queensland	Brisbane	4,745,418	5·5
South Australia	Port Adelaide	9,599,312	4·8
Western Australia	Freemantle	1,321,559	20·9
	Albany	245,767	0·2
Tasmania	Hobart	1,683,270	2·6
	Launceston	1,809,512	6·2
New Zealand	Wellington	2,603,821	8·9
	Auckland	2,813,357	8·1

Tonnage of the United Kingdom.

The comparative importance of the shipping movements of Australasia may be seen from viewing them in connection with the tonnage annually visiting the chief ports of the United Kingdom. In absolute tonnage, it will be observed, Melbourne is exceeded only by London, Liverpool, Cardiff, and Newcastle. Hull comes next on the list, having a slight lead over Sydney, which in its turn exceeds Glasgow, Newport, Southampton, and all the other British ports. If the value of the trade only be considered, that of Sydney is exceeded only by the trade of London, Liverpool,

and Hull. In the following table the tonnage and trade for the British Ports as well as Australasian are for 1891 :—

Port.	Total.	
	Tons.	Trade.
		£
England—		
London	13,425,517	236,594,234
Liverpool	11,087,908	223,261,483
Cardiff	9,386,335	10,818,630
Newcastle	5,283,622	11,570,947
Hull	3,813,676	47,331,467
Newport	1,837,463	2,250,947
Southampton	1,751,576	17,001,119
Scotland—		
Glasgow	2,657,057	27,015,524
Leith	1,445,580	14,096,317
Kirkcaldy	1,175,004	879,034
Grangemouth	1,188,882	3,093,468
Ireland—		
Belfast	329,227	3,261,979
Dublin	307,948	2,929,472
Australasia—		
Melbourne	4,362,138	31,508,051
Sydney	3,291,188	35,377,745
Adelaide	1,990,938	7,145,274
Brisbane	855,993	4,745,418
Albany	931,502	245,767
Hobart	646,683	1,683,270
Auckland	345,183	2,813,357

Tonnage of Melbourne and Sydney.

The yearly movement of tonnage in the ports of Melbourne and Sydney far exceeds that of any other British possessions, except Hong Kong. Two other exceptions might be mentioned those of Gibraltar and Malta, but as these are important naval stations, and the trade is very limited compared with the tonnage, they can hardly be placed in the same category.

Nationality of Tonnage.

The shipping trade of Australasia is almost entirely in British hands, as will be seen from the subjoined table. Although in recent years direct communication with continental Europe has been established, and several splendid lines of steamers have entered on this trade, the proportion of the total shipping belonging to Great Britain and her dependencies has fallen only from

92·9 to 87·0 per cent. during the period covered. The nationality of the tonnage engaged in the total trade was as shown below. Later figures with regard to shipping will be found on page 64 :—

Nationality.	1881.		1891.		Percentage of Tonnage of each Nation to Total Tonnage.	
	No.	Tonnage.	No.	Tonnage.	1881.	1891.
British	15,127	8,313,535	16,834	15,208,612	92·9	87·0
French	91	47,713	251	593,386	0·5	3·4
German	199	130,070	542	856,528	1·5	4·9
Scandinavian	133	66,566	336	304,977	0·7	1·7
United States	308	328,540	382	383,933	3·7	2.2
Other nationalities...	77	57,121	123	132,099	0·7	0·8
Total	15,935	8,943,545	18,468	17,479,535	100·0	100·0

Under the term "British," used in the foregoing table, are included vessels owned in Australasia. The returns published by the various colonies are not in a form such as to admit of the purely local tonnage being distinguished from the other shipping of the empire. In the following table the number and tonnage of vessels registered in each colony are given; the statement, however, does not include the whole of the shipping. Few of the large class of vessels employed in the intercolonial trade have been built in Australasia, and consequently the registrations may not include the whole volume of the trade engaged in local waters. The number and tonnage of vessels registered in each Colony during 1891, is given in the table herewith. The Queensland return is for steamers only :—

Vessels registered in Australasia.

Colony.	Vessels Registered.	
	Number.	Gross Tonnage.
New South Wales	968	113,616
Victoria	412	87,125
Queensland	113	13,163
South Australia	310	39,739
Western Australia	134	5,740
Tasmania	232	19,536
New Zealand	521	102,068
Australasia	2,690	380,987

COMMERCE.

IT would be only natural to suppose that the commerce of these countries would increase in an equal ratio with the population. For many years, however, the expansion of trade was far more rapid; and Australasia now shows a larger ratio of trade compared with population than any other country. If an exception is to be made to this broad statement it is only in favour of Belgium, half of whose trade consists of goods in transit to or from the north of France or the Rhine provinces of Germany.

Total trade.

Prior to 1825 no complete returns of commerce are available for Australasia. The following table, commencing with that year, gives the trade, value per inhabitant, and rate of annual increase for each successive period :—

	Total trade.	Value per inhabitant.	Annual increase per cent. for each period.
	£	£ s. d.	
1825	511,998	10 13 11	.....
1841	5,573,000	22 4 0	16·1
1851	8,957,610	18 10 7	4·9
1861	52,228,207	41 19 10	19·3
1871	69,474,084	35 18 4	2·9
1881	101,710,967	36 12 3	3·9
1891	144,766,285	37 3 1	3·6

Although the preceding table shows an increase of £1 4s. 9d. per inhabitant during the past twenty years, the amount per head in 1891 was only 10s. 10d. larger than that of 1881. The small progress exhibited is more apparent than real, for the volume of merchandise has largely increased, though the monetary value in proportion to population exhibits only a slight development. The small increase in the trade *per inhabitant* is attributable to a depreciation in the value of wool, which is now, and has always been, the staple of Australasian products. Increase of commerce.

The figures just given refer to the apparent trade, but as the outlets of various important districts of some of the colonies are through other colonies, the real trade is less than shown. Thus the whole of the Barrier District of New South Wales is reached through South Australia, and the exports of this district first appear correctly as exports from New South Wales, then they figure as imports into South Australia, and lastly as exports from that province. Other examples of a similar nature might be given. Viewing Australasia as one country, and eliminating the intercolonial traffic, the balance, which may properly be called the external trade, was as follows :— Apparent and real trade.

	Total trade.	Value per inhabitant.	Annual increase per cent. for each period.
	£	£ s. d.	Per cent.
1861	35,061,282	28 3 10	.....
1871	39,729,016	20 10 10	1·3
1881	64,554,678	23 6 3	5·0
1891	84,651,488	22 0 6	2·7

By far the greater part of the external trade of Australasia is with the United Kingdom ; and of the remainder the larger proportion is carried on with foreign countries, principally the United States, France, Germany, and Belgium, while the trade with other British possessions has of late years considerably declined. External trade.

The subjoined table shows the distribution of the external trade in the three divisions to which reference has been made :—

Trade with—		1861.	1871.	1881.	1891.
		£	£	£	£
The United Kingdom.....	Imports	13,467,370	12,006,419	25,662,185	30,823,474
	Exports	12,207,228	18,486,703	24,342,422	32,638,841
	Total...	25,674,598	30,493,122	50,004,607	63,462,315
British Possessions outside Australasia...	Imports	1,767,391	2,382,148	3,078,195	3,094,417
	Exports	3,656,065	764,652	4,257,961	2,231,608
	Total...	5,423,456	3,146,800	7,336,156	5,326,025
Foreign Countries.....	Imports	3,216,738	2,245,124	4,603,326	7,490,424
	Exports	746,490	3,843,970	2,610,589	8,372,724
	Total...	3,963,228	6,089,094	7,213,915	15,863,148
Total, External Trade	Imports	18,451,499	16,633,691	33,343,706	41,408,315
	Exports	16,609,783	23,095,325	31,210,972	43,243,173
	Total...	35,061,282	39,729,016	64,554,678	84,651,488

Trade with United Kingdom.

Prior to the year 1883 the European trade of Australasia was principally carried on with the United Kingdom. Since that date direct commercial relations have been established with the leading continental countries. Notwithstanding the heavy shipments of wool to the Continent, and the return trade therefrom, the British trade has only declined relatively, while the

absolute increase during the last ten years was £13,457,708, equal to nearly 27 per cent.; the trade of Australasia with foreign countries had increased during the same period, £8,649,233 or nearly 120 per cent. The trade with the British possessions outside Australasia has never been of much value, and is now less than formerly, having fallen from £7,336,156 in 1881 to £5,326,025 in 1891. Other British Possessions.

Under present conditions no extension of commercial relations with the United States can be looked forward to, but trade with the east gives good promise for the future, especially with India, China, Japan, and the East Indian Archipelago, where markets for Australasian wool will possibly in time be found—little or nothing in that direction having been accomplished up to the present; but Japan has established a national line of steamers to foster the trade between that country and Australasia. A large amount of business is already transacted with India and Ceylon, which bids fair to increase, particularly in regard to tea, which now strongly competes with the Chinese leaf in public estimation. The value of the direct import of Indian teas in 1891 amounted to about £345,000, being an excess of £64,000 over that of the previous year, while the imports from China of this article have decreased to the extent of about £23,000. Trade with the East.

Trade with the South Pacific Islands is valuable, and increasing, consisting mostly of raw articles imported from them, in exchange for Australasian produce. The bulk of this trade is done with Fiji and New Caledonia, and the latter deals principally with New South Wales, Sydney being the terminal port for the French mail steamers of the Messageries line. The trade with New Guinea is at present but small, though when the resources of that prolific island come to be developed a large amount of trade may be expected. The Island trade.

Every year steamers of greater tonnage and higher speed are visiting the Colonies from Europe, and a considerable expansion Improvement of steamers.

of commerce must of necessity spring up, owing to the new outlets for trade being constantly opened through this increased communication, and to the striking advance in shipping facilities, which have been fully described in the preceding chapter.

Trade with foreign countries.

The value of the trade of the principal foreign countries with Australasia may be gathered from the following statement :—

	Imports.				Exports.			
	1861.	1871.	1881.	1891.	1861.	1871.	1881.	1891.
	£	£	£	£	£	£	£	£
Belgium	....	....	26,713	321,025	....	....	100,437	1,485,731
France and N.Caledonia	136,124	158,992	340,750	369,035	26,793	101,758	336,498	1,835,784
Germany	109,172	3,899	225,672	1,773,277	....	....	70,422	863,815
Netherlands and Java ..	114,304	194,519	466,444	654,660	3,907	39,517	52,192	92,645
Italy.....	....	....	7,874	58,484	....	....	152,914	27,999
Sweden and Norway ..	22,666	106,720	259,156	459,414	....	....	....	....
China	827,347	874,925	1,430,993	699,143	114,149	29,137	73,599	30,749
Japan	....	....	23,245	61,286	1,805	9,470	6,872	16,578
South Sea Islands....	40,200	135,060	124,447	78,285	36,130	153,568	140,299	149,370
United States	1,080,673	616,625	1,593,088	2,920,115	76,154	367,361	1,298,905	3,269,261
Other Countries..	886,252	154,384	104,944	95,700	487,552	3,143,159	373,451	600,792
Total....	3,216,738	2,245,124	4,603,326	7,490,424	746,490	3,843,970	2,610,589	8,372,724

Import and Export trade.

The commerce with foreign countries from the commencement of the period under review exhibits very satisfactory progress; the imports have increased nearly two and a half times, while the exports have advanced nearly twelvefold, and if the total trade be considered the increase was 300 per cent. This expansion is

Trade with the Continent of Europe.

chiefly due to the development of the European continental trade, consequent on the diversion of part of the wool business from London, which was largely brought about by the display of local resources in the Sydney and Melbourne International Exhibitions of 1879 and 1880. The increase since 1881 in the trade of these

colonies with its principal customers amongst foreign countries is given below:—

Countries.	Increase per cent. in		
	Imports.	Exports.	Total Trade
Belgium	1,102	1,379	1,321
France and New Caledonia	8	445	226
Germany	686	1,127	791
United States	83	152	114

Trade with Belgium.

Belgium exhibits the greatest progress, the increase of the export trade being specially marked, but the port of Antwerp is simply a distributing centre for the greater part of the wool destined for the continent; large quantities landed there ultimately find their way to Germany, France, and other countries. The French, early in 1883, were the first to establish direct commercial relations, the steamers of the *Messageries Maritimes*, a subsidised line, making their appearance for the first time in Australian waters in the year named. In 1887 the vessels of the *Nord Deutscher Lloyd* Company, of Bremen, commenced trading with Australasia, and in the latter part of 1888 a line of German cargo boats opened up further communication between the great wool-exporting cities of Sydney, Melbourne, and Adelaide, and the ports of Antwerp, Hamburg, and Dunkirk. Belgium has also established a line of steam-ships, and in addition to these foreign companies there are some British lines running their vessels direct to continental ports.

Direct wool trade with Europe.

The result of these efforts to establish commercial relations is evident from the increase of trade which the foregoing table discloses, and in the diversion, now rapidly being effected, in the channel by which the wool required for Europe reaches the market. The example of the South American Republics, the bulk of whose produce now finds a market at the ports of Antwerp, Hamburg, Havre, and Dunkirk, without passing through London, was not

lost on continental buyers. It was manifest that direct shipments of wool to Europe could as readily be made from Sydney or Melbourne, as from Buenos Ayres or Monte-Video, hence the presence, in increasing numbers in the local markets, of representative buyers from the principal continental firms.

Wool trade with the Continent.

The rapid growth of the continental wool trade during the period from 1881 to 1891 is illustrated by the following table, which shows the values exported direct to the principal countries, and the proportion of the total amount taken by each :—

Country.	Value.		Proportion.	
	1881.	1891.	1881.	1891.
	£	£	per cent.	per cent.
United Kingdom	15,777,327	19,891,218	97·8	82·7
Belgium	96,557	1,453,755	0·6	6·0
Germany..... ...	53,809	782,676	0·3	3·3
France	26,965	1,386,768	0·2	5·8
United States	132,699	514,551	0·8	2·1
Other Countries.....	48,725	34,259	0·3	0·1
Total	16,136,082	24,063,227	100·0	100·0

Value of Australasian wool.

The value of the wool shipped from Australasia has thus increased by nearly eight millions sterling, or more than 49 per cent., in the ten years. It will be observed that while the wool exported to the United Kingdom has increased in value to the extent of over four millions, the proportionate share of such exports to the total wool exports has declined from 97·8 to 82·7 per cent. The export of wool to foreign countries has increased both absolutely and relatively.

The following shows the total and proportionate value of the wool shipped direct to countries outside Australasia by each Colony :—

Colony.	Value.		Proportion.	
	1881.	1891.	1881.	1891.
	£	£		
New South Wales.....	4,485,295	7,917,587	27·8	32·9
Victoria	5,327,934	7,070,661	33·0	29·4
Queensland.....	996,047	2,438,321	6·2	10·1
South Australia.....	1,747,696	1,888,107	10·8	7·8
Western Australia	256,689	311,925	1·6	1·3
Tasmania	416,572	313,422	2·6	1·3
New Zealand	2,905,849	4,123,204	18·0	17·2
Australasia.....	16,136,082	24,063,227	100·0	100·0

Wool exports from Victoria and New South Wales.

It will be seen by the table just given that Victoria was credited in 1881 with exporting wool to a considerable value in excess of that of New South Wales. In 1891, however, the positions were reversed, notwithstanding the fact that large quantities of wool from New South Wales are still sent to Melbourne for export. In 1881 the wool produced in New South Wales, but credited to Victoria, was valued at £2,780,600; in 1891 the value was £2,777,600; the wool imported into and shipped from New South Wales, the produce of other Colonies, for the two years in question was £381,000 and £277,000 respectively. South Australia also receives a large quantity of New South Wales wool for shipment, though not to nearly so great an extent as Victoria.

Wool export of each Colony.

In connection with this subject a statement of the amount of wool of its own production, which each colony exports, whether direct or by way of the other colonies, may not be without interest. The figures relate to 1891 :—

Colony.	Domestic Wool Exported.			Proportion of Export of Australasia.
	Direct.	By way of the other Colonies.	Total.	
	£	£	£	per cent.
New South Wales	7,563,918	3,363,569	10,927,487	45·4
Victoria.....	3,698,635	94,303	3,792,938	13·6
Queensland	2,438,548	1,015,000	3,453,548	14·3
South Australia	1,334,458	205,621	1,540,079	6·4
Western Australia	311,921	17,444	329,365	1·4
Tasmania	313,422	105,038	418,460	1·7
New Zealand	4,122,965	6,482	4,129,447	17·2
Australasia ...	19,783,867	4,807,457	24,591,324	100·0

In the table given on page 42 the value of the direct export of wool is quoted at £24,063,227. This amount differs from that given in the above table, which represents the export value of the wool clip of Australasia, irrespective of destination; and in the £24,591,324, given above, is included that portion of the season's wool held over for the January local sales of the following year. It is estimated that 55,000 bales were in reserve at the beginning of 1892, which, valued at £10 7s. 6d. per bale, equals £570,625, an amount closely approximate to the difference between the values quoted. The apparent discrepancy, however, is of no moment when it is remembered that about one-fifth of the clip of Australasia is subject to valuation, first at the border of the Colony in which it is produced, and again at the port from which it is finally shipped to Europe.

The following figures serve to illustrate the development of the local wool sales in New South Wales, Victoria, and South Australia, for the seasons 1884–5, 1891–2, 1892–3. The number of bales sold during each period shown was :—

Colony.	1884-5.	1891-2.	1892-3.
	Bales.	Bales.	Bales.
New South Wales.....	109,589	283,132	361,508
Victoria	192,625	292,870	308,526
South Australia.....	32,157	58,011	54,285

Trade with the United States.

Australasia has for many years maintained important commercial relations with the United States of America, and in 1891 America's share of the trade of Australasia with foreign countries was about 40 per cent. of the whole. The greater part of this trade was carried on with New South Wales, Victoria, and New Zealand. The main exports to the United States are specie, wool, coal, kauri gum, and New Zealand flax—chiefly the two first mentioned—so that, though large in its nominal amount, the trade is less valuable than would at first sight appear. The export of wool, which has hitherto been unimportant, amounted in 1891 to £514,551, an increase of £325,314 over the total of the previous year.

Trade with China.

The Australasian exports to China are but small compared with the imports, and evince a considerable falling off since 1861. The figures given by the Customs returns as the imports and exports between Australasia and China do not, however, represent the whole amount of the trade, as a considerable portion of the trade with Hongkong is in reality intended for the Chinese Empire—Hongkong, although a British possession, being to a large extent a distributing centre for the Empire. In view of this fact the

following table has been compiled, which shows the trade with the Empire and with Hongkong :—

	Imports.			Exports.		
	1889.	1890.	1891.	1889.	1890.	1891.
	£	£	£	£	£	£
Chinese Empire	812,859	706,131	699,143	65,105	56,269	30,749
Hongkong	1,017,946	753,853	648,785	431,884	451,456	491,771
Total	1,830,805	1,459,984	1,347,928	496,989	507,725	522,520

Trade with other countries.

Besides the foregoing countries, Australasia maintained a not inconsiderable trade with the South Seas, Java, and Scandinavia ; with the two countries last mentioned the trade consists mainly of imports.

The figures relating to the trade that each colony carries on with countries outside Australasia would be extremely interesting if they could be given with exactness ; unfortunately this is impossible as the destination of goods exported overland cannot be traced beyond the colony to which they are in the first instance despatched ; all that can be given is the trade by sea, which the following series of tables show. The imports from countries outside Australasia were :—

Colony.	Total Value.		Value per Inhabitant.	
	1881.	1891.	1881.	1891.
	£	£	£ s. d.	£ s. d.
New South Wales.....	11,357,096	14,256,219	14 18 9	12 9 4
Victoria	10,768,791	13,045,493	12 7 6	11 7 9
Queensland.....	1,492,305	3,183,209	6 14 3	7 18 6
South Australia.....	3,566,917	4,038,763	12 17 7	12 10 1
Western Australia	208,743	695,358	7 1 5	13 12 11
Tasmania	445,576	698,973	3 16 3	4 13 10
New Zealand	5,504,278	5,490,300	11 3 4	8 14 4
Australasia.....	33,343,706	41,408,315	12 0 10	10 15 6

The exports to countries outside Australasia were as follow:—

Colony.	Total Value.		Value per Inhabitant.					
	1881.	1891.	1881.			1891.		
	£	£	£	s.	d.	£	s.	d.
New South Wales	9,326,349	14,340,850	12	5	4	12	10	10
Victoria	11,515,661	11,097,653	13	4	8	9	13	9
Queensland	1,301,400	3,378,816	5	17	1	8	8	3
South Australia	3,172,920	5,620,561	11	9	2	17	8	0
Western Australia	357,702	562,076	12	2	4	11	0	7
Tasmania	513,363	382,381	4	7	10	2	11	4
New Zealand	5,023,577	7,860,836	10	3	10	12	9	7
Australasia	31,210,972	43,243,173	11	5	5	11	5	0

Combining the figures given in these tables, the total external trade of Australasia, and the value per head of each Colony, as well as the group, are :—

Colony.	Total Value.		Value per Inhabitant.					
	1881.	1891.	1881.			1891.		
	£	£	£	s.	d.	£	s.	d.
New South Wales	20,683,445	28,597,069	27	4	1	25	0	2
Victoria	22,284,452	24,143,146	25	12	2	21	1	6
Queensland	2,793,705	6,562,025	12	11	4	16	6	9
South Australia	6,739,837	9,659,324	24	6	9	29	18	1
Western Australia	566,445	1,257,434	19	3	9	24	13	6
Tasmania	958,939	1,081,354	8	4	1	7	5	2
New Zealand	10,527,855	13,351,136	21	7	2	21	3	11
Australasia	64,554,678	84,651,488	23	6	3	22	0	6

Expansion of trade not uniform.

It will be seen by the returns treating the imports and exports separately that the expansion of trade in the various Colonies has not been uniform. The imports of New South Wales in 1891 exceed those of 1881 by nearly 3 millions sterling, and the exports of 1891 exceed those of 1881 by over 5 millions. The Victorian imports have increased in about the same ratio, while the exports are slightly less than they were in 1881; and the Tasmanian import trade has largely increased, while the exports exhibit a falling off of about 25 per cent. compared with those of 1881. The South Australian imports are slightly larger than they were in 1881, but the exports have nearly doubled.

The value of the New Zealand imports was about the same as in 1881, but the exports have increased by over 50 per cent. No rigid deductions can possibly be drawn from the facts just given, for, as is well known, some of the provinces—notably Queensland and Tasmania—are not yet in a position to maintain a direct foreign trade, and in a forced comparison with the rest of Australasia are apt to suffer.

Total trade.

If the total trade of 1891 be considered, New South Wales heads the list with a commerce valued at £28,597,069, Victoria, with £24,143,146, being second, while New Zealand ranks third, with a trade of £13,351,136. Taking all the Colonies together the external imports and exports combined equal a trade of £22 0s. 6d. per inhabitant.

Trade with British and foreign countries.

The value of the direct trade between Australasia and the United Kingdom, other British Possessions, and Foreign Countries for 1881 and 1891 is shown in the following tables :—

Country.	Imports.		Exports.		Total Trade.	
	1881.	1891.	1881.	1891.	1881.	1891.
British Empire—	£	£	£	£	£	£
United Kingdom	25,662,185	30,823,474	24,342,422	32,638,841	50,004,607	63,462,315
India and Ceylon....	842,943	1,258,072	3,153,835	1,000,871	3,996,778	2,258,943
Canadian Dominion..	100,478	151,727	.....	40	100,478	151,767
Cape Colony	1,303	382	314,460	171,412	315,763	171,794
Fiji	63,190	332,774	157,913	166,326	221,103	499,100
Mauritius	1,364,421	459,179	95,475	107,151	1,459,896	566,330
Hongkong	642,308	648,785	359,934	491,771	1,002,242	1,140,556
Straits Settlements ..	59,043	188,571	38,767	151,243	97,810	339,814
Other Possessions....	4,509	54,927	137,577	142,794	142,086	197,721
Total, British....	28,740,380	33,917,891	28,600,383	34,870,449	57,340,763	68,788,340
Foreign Countries—						
France and New Caledonia.	340,750	369,035	336,498	1,835,784	677,248	2,204,819
Germany.....	225,672	1,773,277	70,422	863,815	296,094	2,637,092
Italy.....	7,874	58,484	152,914	27,999	160,788	86,483
Belgium	26,713	321,025	100,437	1,485,731	127,150	1,806,756
Sweden and Norway..	259,156	459,414	.....	.....	259,156	459,414
United States.....	1,593,088	2,920,115	1,298,905	3,269,261	2,891,993	6,189,376
Netherlands and Java	466,444	654,660	52,192	92,645	518,636	747,305
South Sea Islands ..	124,447	78,285	140,299	149,370	264,746	227,655
China	1,430,993	699,143	78,599	30,749	1,509,592	729,892
Japan	23,245	61,286	6,872	16,578	30,117	77,864
Other Countries	104,944	95,700	373,451	600,792	478,395	696,492
Total, Foreign	4,603,326	7,490,424	2,610,589	8,372,724	7,213,915	15,863,148
Total External	33,343,706	41,408,315	31,210,972	43,243,173	64,554,678	84,651,488

The importance to the United Kingdom of its trade with the Australasian Colonies has already been alluded to. The following figures illustrate the position occupied by the imports from these Colonies into Great Britain, as compared with the sum of the imports from all her possessions :—

Value of Australasian trade to United Kingdom.

Year.	As Returned by British Customs.		Percentage of Imports from Australasia to total from British Possessions.
	Total Imports from British Possessions.	Imports from Australasia.	
	£	£	
1881	91,539,660	26,975,381	29·5
1891	99,464,718	31,261,571	31·4

Trade between the Mother Country and British Possessions.

A comparison of the total trade done by the United Kingdom with some of her principal possessions discloses some peculiar facts. Although it is very little more than a century since the commencement of Australasian settlement, the trade of these colonies with the United Kingdom is only exceeded by that of India, while it is nearly three times that of Canada, and in a larger degree exceeds the trade of any other British Possession. The following table, which is taken from the returns of the Board of Trade, and differs slightly from the local returns, shows the trade for the two years, 1881 and 1891, of the principal portions of the Empire with the United Kingdom, and the proportion of the total trade which each transacts :—

Country.	1881.	1891.	Per-centage of Trade to total of British Possessions with United Kingdom.	
			1881.	1891.
	£	£		
India	63,682,398	64,783,605	35·7	33·6
Canadian Dominion	20,608,159	20,906,357	11·6	10·8
Cape Colony and Natal	13,105,264	14,892,965	7·4	7·7
Straits Settlements	6,527,675	7,946,127	3·7	4·1
Hongkong	4,815,905	3,833,859	2·7	2·0
Australasia	50,957,785	59,517,691	28·6	30·9

Trade of United Kingdom with Europe and America.

If a comparison of the trade of the United Kingdom with Australasia during 1891 be made with that of Great Britain and other countries, it will be found it is surpassed only by that with the United States with £145,475,197, France with about £69,114,136, and British India, with £64,783,605, so that Australasia, with a trade of £59,517,691, stands fourth of all countries so far as the value of its commercial relations with the United Kingdom are concerned. The total Trade of the United Kingdom with principal foreign countries and Australasia for the two periods shown, according to the Board of Trade returns, was :—

Country.	1881.	1891.	Per-centage to Total Trade of United Kingdom. 1891.
	£	£	per cent.
France	70,069,848	69,114,136	9·3
Germany	52,927,199	56,976,104	7·7
Belgium	25,047,833	30,525,737	4·1
Spain	14,421,326	16,050,936	2·2
Italy	10,792,615	10,272,329	1·2
United States	139,990,876	145,475,197	19·5
Argentine Republic	4,000,090	7,817,256	1·0
Chili	5,417,363	5,916,225	0·8
Brazil	13,254,733	12,855,202	1·7
Uruguay	1,881,522	1,568,891	0·2
Australasia	50,957,785	59,517,691	8·0

INTERCOLONIAL TRADE.

Intercolonial trade.

The intercolonial trade of Australasia is increasing in a slightly higher ratio than does the population. The following figures represent the total value of this important branch of the general trade, as well as the value per inhabitant. It is obvious, and the matter has been alluded to in a previous paragraph, that the total intercolonial trade, which is shown by the table, represents in reality

twice the actual value of goods passing from one Colony to another, the same goods figuring in one place as an export, and in another as an import. The value of goods passing through for foreign countries, as well as goods imported from abroad and re-exported, is also included. The movement of goods will, therefore, be half what the table shows:—

Year.	Total.	Value per Inhabitant.
	£	£ s. d.
1861	17,166,925	13 16 0
1871	29,745,068	15 7 6
1881	37,156,289	13 8 4
1891	60,114,797	15 12 10

Total trade between the Colonies.

The figures given in the following table represent the inter-colonial imports and exports together, and, although labouring under the defect just mentioned, afford interesting evidence of the way in which the prosperity of each colony is bound up with that of the others:—

Colony.	1881.	1891.	1881.	1891.
	£	£	per cent.	per cent.
New South Wales	13,211,372	22,730,348	35·6	37·8
Victoria	10,686,172	13,575,205	28·8	22·6
Queensland	4,810,286	6,822,366	12·9	11·3
South Australia	3,089,466	11,034,215	8·3	18·4
Western Australia	341,156	822,125	0·9	1·4
Tasmania	2,027,781	2,411,428	5·5	4·0
New Zealand	2,990,056	2,719,110	8·0	4·5
Australasia	37,156,289	60,114,797	100·0	100·0

INTERNAL AND EXTERNAL TRADE.

Total trade of the Colonies.

Considering now the general trade of the Colonies, irrespective of its origin or destination, some important results are arrived at, the bearing of which will hereafter be discussed. For the two periods, 1881 and 1891, the total external and intercolonial imports were :—

Colony.	Total Value.		Value per Inhabitant.					
	1881.	1891.	1881.			1891.		
	£	£	£	s.	d.	£	s.	d.
New South Wales	17,587,012	25,383,397	23	2	7	22	3	11
Victoria	16,718,521	21,711,608	19	4	3	18	19	1
Queensland	4,063,625	5,079,004	18	5	8	12	12	11
South Australia	5,320,549	10,051,123	19	4	3	31	2	4
Western Australia	404,831	1,280,093	13	14	3	25	2	5
Tasmania	1,431,144	2,051,964	12	5	0	13	15	6
New Zealand	7,457,045	6,503,849	15	2	7	10	6	6
Australasia	52,982,727	72,061,038	19	2	8	18	14	11

The values of external and intercolonial exports were :—

Colony.	Total Value.		Value per Inhabitant.					
	1881.	1891.	1881.			1891.		
	£	£	£	s.	d.	£	s.	d.
New South Wales	16,307,805	25,944,020	21	9	0	22	13	9
Victoria	16,252,103	16,006,743	18	13	6	13	19	6
Queensland	3,540,366	8,305,387	15	18	6	20	13	6
South Australia	4,508,754	10,642,416	16	5	7	32	19	0
Western Australia	502,770	799,466	17	0	8	15	13	9
Tasmania	1,555,576	1,440,818	13	6	3	9	13	5
New Zealand	6,060,866	9,566,397	12	5	11	15	3	10
Australasia	48,728,240	72,705,247	17	12	0	18	18	4

The total trade, or imports and exports combined, was as follows:—

Colony.	1881.	1891.	Value per Inhabitant.	
			1881.	1891.
	£	£	£ s. d.	£ s. d.
New South Wales ...	33,894,817	51,327,417	44 11 7	44 17 8
Victoria.....	32,970,624	37,718,351	37 17 9	32 18 7
Queensland	7,603,991	13,384,391	34 4 2	33 6 5
South Australia	9,829,303	20,693,539	35 9 10	64 1 4
Western Australia ...	907,601	2,079,559	30 14 11	40 16 2
Tasmania	2,986,720	3,492,782	25 11 3	23 8 11
New Zealand	13,517,911	16,070,246	27 8 6	25 10 4
Australasia.....	101,710,967	144,766,285	36 14 8	37 13 3

Trade of South Australia.

The point most notable in the series of tables just given is the very marked impetus which the trade of South Australia has received during the years which have elapsed since 1881; a trade of £64 1s. 4d. per inhabitant, the value transacted by South Australia during 1891, is almost without parallel in any important country. This huge trade is, however, not drawn altogether from its own territory, for more than £5,731,000, or about £17 15s. per inhabitant, is due to the Barrier District of New South Wales, of which South Australia is the natural outlet.

Trade of New South Wales.

The trade of New South Wales for 1891 stood at £51,327,417, which was the highest ever recorded, but the value per inhabitant, although large, has been exceeded three times during the last decade. All of the Colonies have advanced their total trade since 1881, and all, except Victoria and Tasmania, their exports.

Australasian trade compared.

It will be interesting to measure the volume of Australasian trade, shown by the foregoing figures with the latest returns of other countries. Such a means of comparison the following table affords, the returns being, for either the year 1890 or for

1891. As regards Australasia the external trade only has been taken :—

Country.	Total Trade.			Per Inhabitant.
	Merchandise.	Specie and Bullion.	Total.	
	£	£	£	£ s. d.
United Kingdom	744,554,982	76,820,009	821,374,991	21 11 1
France.....	411,704,000	29,713,000	441,417,000	11 11 0
Germany	528,635,000	10,535,000	539,170,000	10 18 2
Italy	93,489,000	4,972,000	98,461,000	3 3 8
Belgium	245,492,000	8,542,000	254,034,000	41 17 1
Cape Colony	16,907,278	2,806,522	19,713,800	12 18 2
Canada	44,629,550	244,066	44,873,616	9 5 8
Argentine Republic ...	48,612,000	2,487,000	51,099,000	14 12 0
Chili	28,392,000	1,350,000	29,742,000	11 15 4
United States	355,843,000	29,879,200	385,722,200	6 3 2
Australasia.....	78,500,036	6,151,452	84,651,488	22 0 6

The trade per inhabitant for Australasia exceeds that of any country appearing in the list, Belgium alone excepted. In the case of that country it is but proper to remark that about one-half of the trade credited to it comprises goods in transit to and from Germany and France.

Excess of imports over exports.

From the foregoing pages it will be readily seen that an excess in the value of imports over exports is a prominent feature of the trade of Australasia taken as a whole, although in some Colonies the reverse is the case. The surplus of imports is due to two causes: (1) the importation, by the Governments and local bodies of the various Colonies, of money to cover the cost of construction of public works; and (2) the private capital sent to Australasia for investment. Taking the Colonies as a whole these two items combined, exceed the payments made for interest on past loans, both public and private, and the sums drawn from the country by absentees. Some of the Colonies have ceased to borrow, or the amount of their borrowing falls below their yearly payments for interest; in such cases there is an excess of exports. Hereunder is shown the balance of trade of each Colony and of Australasia for the five

years, 1887–1891, and the amount of public loan money expended during the same period, but this does not cover the whole question as the amount of private capital invested is not given :—

Colony.	Excess of Imports.	Expenditure from Public Loans.
	£	£
New South Wales	535,281	12,558,611
Victoria	44,850,061	14,885,019
Queensland	*8,509,900	8,426,206
South Australia	*3,213,259	4,199,571
Western Australia	1,073,458	478,196
Tasmania	1,597,089	3,349,002
New Zealand	*12,092,823	3,829,889
Australasia	24,239,907	47,726,494

* Excess of exports.

These figures have a very important bearing on the future condition of Australasia, but comment on this subject will come more properly in the chapter dealing with finance, and will be found there.

Domestic produce.

The values of the exports of Australasia, and of its various provinces, have been given in the previous pages without respect to the locality where the articles were produced. It will be instructive to see to what extent the exports have been the produce of the Colony whence they were shipped. The following table shows the value of the exports of domestic produce from each Colony as returned by the Customs for the years 1881 and 1891, and the value thereof per inhabitant :—

Colony.	Total Value.		Value per Inhabitant.	
	1881.	1891.	1881.	1891.
	£	£	£ s. d.	£ s. d.
New South Wales	11,955,277	21,103,816	15 14 6	18 9 1
Victoria	12,480,567	13,026,426	14 6 10	11 7 6
Queensland	3,478,376	7,979,080	15 12 11	19 17 4
South Australia	3,755,781	4,810,512	13 11 3	14 17 10
Western Australia	498,634	788,873	10 17 10	15 9 7
Tasmania	1,548,116	1,367,927	13 5 0	9 3 8
New Zealand	5,762,250	9,400,094	11 13 9	14 18 6
Australasia	39,479,001	58,476,728	14 5 2	15 4 3

Australasian trade in domestic produce.

The foregoing figures show the total external and intercolonial exports of domestic produce for the seven Colonies, but must be

regarded as merely an approximation, since it is difficult to ascertain with exactitude the domestic exports of some of the Colonies. This is especially the case with Victoria, and in a lesser degree with New South Wales and South Australia. In the first mentioned Colony large quantities of wool, the produce of the other Colonies —chiefly New South Wales—are exported as domestic produce, amounting in 1891 to £2,767,083. There is some export of New South Wales as locally grown wool from South Australia, but the value thereof is by no means large. Wool, chiefly from Queensland, is exported as domestic produce by New South Wales; the amount thus unduly credited in 1891 was £108,531. As regards New South Wales, tin and copper ore, the former chiefly from Queensland and Tasmania, and the latter from South Australia, which are imported for the purpose of being refined, are exported as domestic produce. So also, Queensland cattle after being fattened in New South Wales pastures are exported as local produce, but in these instances a material change is wrought in the imports, which is not the case with wool. An attempt has been made to remove these elements of error, and the amounts shown in the following table may be accepted as the true value of domestic produce exported from each Colony during 1891 :—

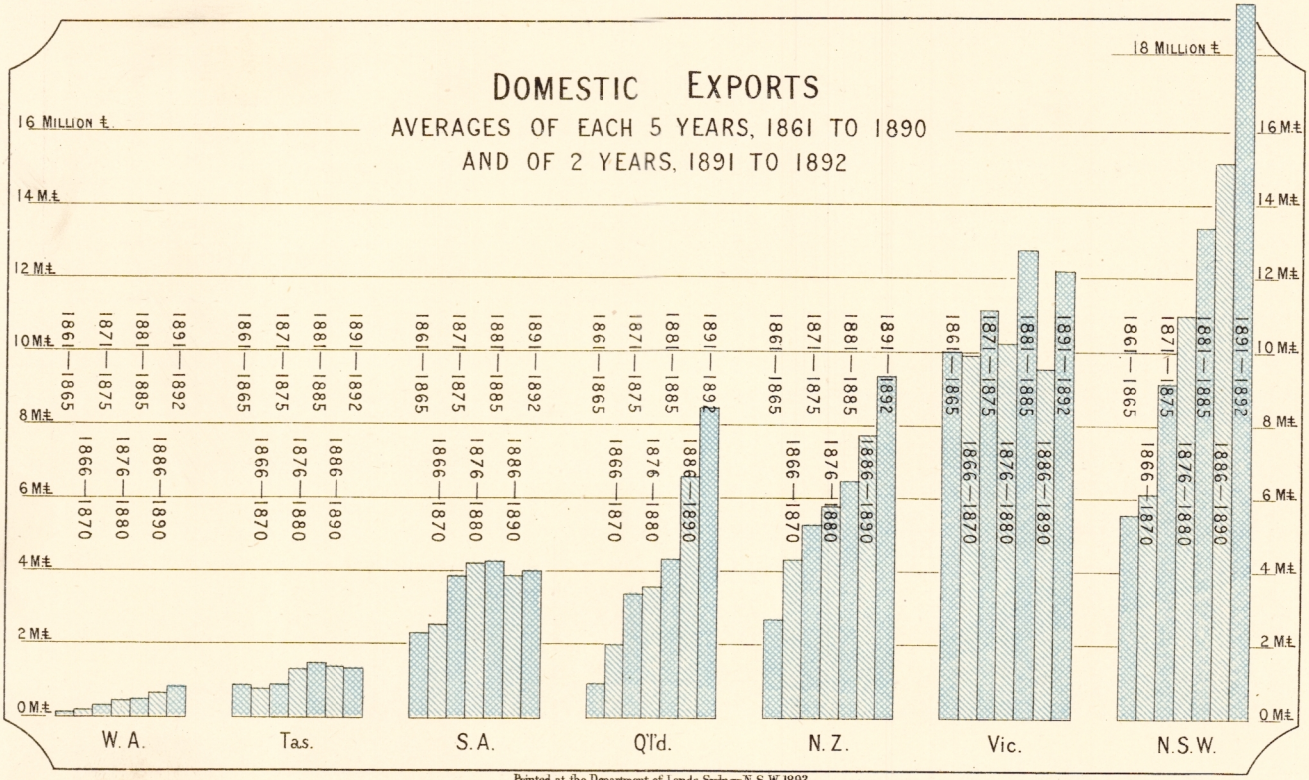
Colony.	External and Intercolonial Domestic Exports.		External Domestic Exports.	
	Value.	Percentage to Total.	Value.	Percentage to Total.
	£		£	
New South Wales.....	20,905,285	37·7	10,944,703	31·6
Victoria	10,259,343	18·5	7,642,953	22·1
Queensland.....	7,979,080	14·4	4,098,199	11·8
South Australia.....	4,730,789	8·5	3,256,221	9·4
Western Australia ...	788,767	1·4	555,934	1·6
Tasmania	1,367,927	2·5	380,422	1·1
New Zealand	9,400,094	17·0	7,771,716	22·4
Australasia.....	55,431,285	100·0	34,650,148	100·0

Exports compared.

Placing the values of the external exports of domestic production of Australasia side by side with those of some of the more important countries of the world, a useful comparison is afforded,

DOMESTIC EXPORTS

AVERAGES OF EACH 5 YEARS, 1861 TO 1890 AND OF 2 YEARS, 1891 TO 1892



Printed at the Department of Lands, Sydney, N. S. W. 1893
N° of Lithograph D. 93/6

and from whatever standpoint the matter be viewed, these colonies must appear in a very favourable light. The figures refer to either 1890 or 1891. Coin and bullion have been excluded from the amount given for Australasia, also, as previously stated, the intercolonial trade :—

Country.	Exports of Domestic Produce (exclusive of Coin and Bullion).	Per Inhabitant.
	£	£ s. d.
United Kingdom	247,235,000	6 10 10
France	150,136,000	3 18 7
Germany	166,405,000	3 7 4
Austria-Hungary	64,281,000	1 11 1
Italy	35,838,000	1 3 2
Belgium	57,481,000	9 9 5
Cape Colony	9,969,000	6 10 7
Canada	18,245,000	3 15 6
Argentine Republic	20,164,000	5 15 3
United States	179,479,000	2 17 4
Australasia	31,201,000	8 2 4

Re-export trade of each Colony.

The extent to which the geographical position of a Colony enables it to benefit by the production of its neighbours, is illustrated by the proportion which the non-domestic bear to the total exports. The following table indicates this proportion for each Colony, according to the Customs returns for 1891 ; and it would appear that South Australia, Victoria, and New South Wales, in the order named, benefit largely by their position. The re-export trade of the other colonies is insignificant :—

Colony.	Value.	Percentage to Total Exports.
	£	
New South Wales	4,840,204	18·6
Victoria	2,980,317	18·6
Queensland	326,307	3·9
South Australia	5,831,904	54·8
Western Australia	10,593	1·3
Tasmania	72,891	5·1
New Zealand	166,303	1·7
Australasia—Total Non-Domestic	14,228,519	19·6
Australasia—External Non-Domestic	5,639,003	13·0

The Pastoral Industry.

The importance of the pastoral industry to Australasia will be made clear in another part of this volume. Its value to each Colony varies, as the statement hereunder shows. In no Colony does the proportion of exports of this class fall below 41 per cent. of the total value of domestic produce exported, and in the case of New South Wales and New Zealand, it reaches about 65 per cent. In the totals the external trade is distinguished from the whole volume of the pastoral export :—

Colony.	Wool.	Other Pastoral Produce.	Total.	Percentage of Exports of Pastoral Produce to Total Export of Domestic Products.
	£	£	£	
New South Wales...	11,036,018	2,627,010	13,663,028	65·0
Victoria	6,638,983	949,035	7,588,018	58·2
Queensland.....	3,453,548	1,442,672	4,896,220	61·4
South Australia.....	1,619,802	378,178	1,997,980	41·5
Western Australia..	329,365	41,537	370,902	47·0
Tasmania	418,460	118,431	536,891	39·2
New Zealand.....	4,129,686	1,930,251	6,059,937	64·5
Australasia— Total Domestic	27,625,862	7,487,114	35,112,976	60·1
Australasia— External Domestic...	24,063,227	4,027,240	28,090,467	74·7

MOVEMENTS OF GOLD.

Import and export of Gold.

Since the discovery of gold in the year 1851, large quantities of the metal—in the form of coin as well as bullion—have been exported from the Australasian Colonies every year. In the figures shown for the Colonies as a whole, no attempt has been made to exclude the intercolonial trade. The excess of exports of gold from each of them calculated for ten-year periods from the year 1851 to the end of 1891 is given herewith. The largest exporters, it will be found, are also the largest producers, as Victoria, New Zealand, and Queensland. The other Colonies now produce very little more than suffices to meet their local requirements. The returns of the gold imports and exports for New South Wales, it must be remembered, are swollen by large quantities of Queensland gold, which is simply sent to Sydney to

Producers the largest exporters.

be minted, and then exported in the shape of coin, but only the excess of exports appears in the following table :—

Colony.	1851-60.	1861-70.	1871-80.	1881-91.	1851-1891.
	£	£	£	£	£
New South Wales.....	8,337,067	13,656,650	5,248,994	1,548,329	28,791,040
Victoria	86,342,134	62,609,042	37,222,632	24,709,991	210,883,799
Queensland.....	.....	1,768,575	9,430,137	13,598,969	24,797,681
South Australia	1,900,955	*395,633	*1,100,309	*714,834	*309,821
Western Australia	.....	19,586	*38,000	*38,138	*56,552
Tasmania	843,029	*41,570	158,696	893,767	1,853,922
New Zealand	48,981	20,294,822	14,215,143	8,587,203	43,146,149
Total excess of exports	97,472,166	97,911,472	65,137,293	48,585,287	309,106,218
Average per annum ..	9,747,217	9,791,147	6,513,729	4,416,844	7,539,176

* Excess of Imports.

CUSTOMS REVENUE.

Revenue derived from taxation.

The revenue derived from the taxation of goods imported into Australasia during 1892 amounted to £8,763,784, which is equal to £2 4s. 6d. per inhabitant. It will be found, from a consideration of a subsequent table, that the rate per inhabitant varies very greatly, not only comparing one colony with another, but for the same Colony in different years. The variation spoken of arises from diverse causes. Thus the influence of good or bad times on the purchasing power of the people naturally reacts on the Customs collections, although the rise or fall of the rate per inhabitant is not always a safe indication of such influence. Certain Colonies still produce less than they require in agricultural produce, notably New South Wales and Queensland ; a good season, since it enables these Colonies to more nearly meet their requirements, means a decrease in the revenue derived from the importation of agricultural produce. Similar effects are also felt in regard to the revenue derived from other forms of produce, notably live stock. In considering this question, it must also be remembered that for many years the Colonies have been systematic borrowers in the London market, and they have also been the recipients of much money sent for investment by private persons. As loans of all descriptions reach the borrowing country in goods, and as a con-

siderable proportion of the importations into all the Colonies is the subject of taxation, years of lavish borrowing are naturally years of large revenue collections, and, coincident with the cessation of the flow of foreign capital, there is naturally found a decrease in Customs revenue. There have also been extensive alterations in the tariffs affecting the revenue during the years which the following tables cover. In New South Wales in 1891, in South Australia in 1887, radical tariff changes were made, and in other years minor alterations took place in nearly all the other Colonies. To these is chiefly attributable any sharp rise in the rate of revenue per inhabitant. It must, however, be allowed that tariff changes have been made which have affected the collections to a very slight extent. This is notably the case with the recent alterations in the Victorian duties.

Decline in revenue from Customs.

Speaking generally, it may be said that the Customs revenue is declining or likely to decline. Apart from the specific causes mentioned above, other effective, if less obtrusive, influences are at work. Year by year the industries of the colonies are being developed, and the local producer is acquiring a firm hold upon the domestic markets. In several of the colonies little, if any, revenue is now received from duties on agricultural produce, as such produce is not imported; and many descriptions of manufactured goods have likewise ceased to be imported, the locally made article being produced in sufficient quantities to meet the demand. There can be no reasonable doubt but that this tendency will be still more marked in the future; and if the present rate of expenditure is to be maintained, Australasian Treasurers will find it necessary to look to other sources than the Customs for the revenue necessary to carry on the business of the country.

Analysis of duties.

So far as the duties payable may be taken as a basis of classification, the imports may be divided into two classes, one comprising intoxicants and narcotics, upon which duties equal to an average of about 120 per cent. *ad valorem* are levied, and another class consisting of imports selected for taxation at specific

or *ad valorem* rates. The value of intoxicants and narcotics imported during 1891 into the other colonies, with those of New South Wales for 1892, was £3,231,916, while the import duties collected thereon was not less than £3,920,061, the amounts credited to each colony being as follow :—

Colony.	Imports of intoxicants and narcotics for home consumption.	Amount of import duties collected.
	£	£
New South Wales	1,059,887	1,217,049
Victoria	1,008,122	1,070,692
Queensland	442,027	526,695
South Australia	156,685	192,416
Western Australia	89,332	106,697
Tasmania	106,936	150,719
New Zealand	368,927	655,793
Australasia	3,231,916	3,920,061

Distribution of taxation.

These collections represent about 46 per cent. of the total Customs revenue raised, the remaining portion being distributed among the various colonies, as the following table shows. The total value of imports for home consumption, exclusive, of course, of the value of intoxicants, narcotics, coin, and bullion, is also given. A column has been added, showing what the collections amount to, stated as an average *ad valorem* duty on the total imports for home consumption :—

Colony.	Imports for Home Consumption (exclusive of Coin and Bullion, and Intoxicants and Narcotics).	Amount of Import Duties collected (less duty paid on Intoxicants and Narcotics).	Average *ad valorem* Duty.
	£	£	℔ cent.
New South Wales	14,591,751	1,388,252	9·5
Victoria	13,169,150	1,313,726	10·0
Queensland	4,439,244	676,145	15·2
South Australia	3,228,334	504,364	15·6
Western Australia	1,068,203	127,080	11·9
Tasmania	1,754,782	228,232	13·0
New Zealand	5,867,070	899,530	15·3
Australasia	44,118,534	5,137,329	11·6

The comparison afforded by the last column, however, has no special value, seeing that a large proportion, probably from 45 to 50 per cent. of the importations other than intoxicants and narcotics, are admitted free of duty, all the Colonies except Western Australia having still a large free list. Reckoning only goods subject to duty the average rate of duties levied is equal to about 22 per cent. *ad valorem*.

Amount of import duties.

The import duties collected in the various colonies for each of the last six years is set forth in the following table, drawbacks being allowed for as regards New South Wales, Victoria, and New Zealand:—

Colony.	1887.	1888.	1889.	1890.	1891.	1892.
	£	£	£	£	£	£
New South Wales..	1,942,621	1,831,432	1,863,211	1,849,684	2,133,799	2,605,301
Victoria	2,148,835	2,682,012	2,771,315	2,588,367	2,384,418	2,134,303
Queensland	1,083,088	1,345,104	1,346,768	1,242,343	1,202,840	1,128,525
South Australia ..	516,756	605,443	588,366	675,085	696,780	642,104
Western Australia..	166,698	154,352	167,992	178,231	233,777	277,168
Tasmania	282,307	301,802	309,762	330,991	378,951	322,319
New Zealand.....	1,280,586	1,361,995	1,409,065	1,493,945	1,555,323	1,654,064
Australasia.....	7,420,891	8,282,140	8,456,479	8,358,646	8,585,888	8,763,784

Import duties per head.

The revenue per inhabitant derived from import duties offers probably more food for reflection than the figures in the table just given. New South Wales raised the smallest revenue compared with population of any of the colonies of the group until 1892, a circumstance due to the comparatively low rate of the tariff; in 1892 its collections were above the average for Australasia. The variations in the rates from year to year are interesting as illustrating the force of the remarks a few pages back introducing the subject of Customs duties :—

Colony.	1887.	1888.	1889.	1890.	1891.	1892.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
New South Wales..	1 18 6	1 15 4	1 14 11	1 13 7	1 17 3	2 4 1
Victoria	2 2 3	2 10 10	2 10 10	2 6 3	2 1 7	1 16 9
Queensland	3 2 5	3 13 10	3 11 4	3 4 0	2 19 11	2 14 3
South Australia ..	1 13 9	1 19 4	1 18 1	2 3 2	2 3 11	1 19 4
Western Australia..	3 19 11	3 13 4	3 18 0	3 19 0	4 10 7	4 19 0
Tasmania	2 2 3	2 4 0	2 4 2	2 6 0	2 10 11	2 0 10
New Zealand.....	2 3 0	2 5 2	2 6 2	2 8 1	2 9 4	2 11 6
Australasia.....	2 3 1	2 6 9	2 6 6	2 4 10	2 4 8	2 4 6

A general statement of the Customs duties levied in each colony would form a fitting close to this chapter, but there is so little concordance in the tariffs of the colonies, that it is not possible to arrange the duties under general heads, so as to convey a distinct impression of the scope of each. Indeed it is more than probable that the keenest analysis will fail to detect any scientific principle underlying the rates of duty charged. Specific duties on large items of general consumption were the first sources of revenue, these have been increased from time to time, but have rarely been diminished when once imposed. The necessities of the Treasury or other causes subsequently led to the imposition of *ad valorem* duties, the only canon of taxation which seemed to have weighed with the framers of the tariffs, was that raw material required for local manufacturers should remain untaxed, and even this obvious rule has not infrequently been departed from. Disparity of tariffs.

Returns have been received from the various colonies giving particulars respecting the shipping and commerce for 1892, but as the statements were not sufficiently complete to warrant their use in the foregoing tables, the figures for 1891 were inserted there, and such of the information for 1892 as could be procured will be found in the following tables. The value of the total wool export to the British Empire and principal Foreign Countries in 1892 was as follows :— Export of wool in 1892.

Colony.	Value of Wool Exported to—					Total.	Exported to Australasian Colonies for re-export.
	United Kingdom.	France.	Germany	Belgium.	Other Countries.		
	£	£	£	£	£	£	£
New South Wales..	5,003,331	662,418	968,306	932,654	62,550	7,629,259	2,910,888
Victoria	4,337,005	874,572	645,720	450,460	253,772	6,561,529	57,612
Queensland	3,112,384	.....	.....	.....	.....	3,112,384	1,146,820
South Australia....	1,481,081	80,020	48,840	63,516	.....	1,673,457	280,946
Western Australia..	214,644	.....	.....	.....	99,801	314,445	12,258
Tasmania.....	219,291	.....	.....	.....	....	219,291	110,294
New Zealand	4,298,405	.....	.....	.....	12,564	4,310,969	2,338
Australasia	18,666,141	1,617,010	1,662,866	1,446,630	428,687	23,821,334	4,521,156

The Shipping and Trade during 1892 of the principal ports of each colony were as shown below. In the Queensland shipping returns it will be noticed the coastal tonnage is included, which is Shipping and trade of 1892.

not the case with the other colonial ports. Excluding coastal, the total would be 972,428 tons—490,869 being inward, and 481,559 outward tonnage:—

Ports.	Shipping.			Commerce.			
	Inwards.	Outwards	Total.	Imports.	Exports.		
					Domestic.	Re-Exports.	Total.
New South Wales—	Tons.	Tons.	Tons.	£	£	£	£
Sydney	1,896,677	1,594,108	3,490,785	17,055,806	9,935,416	4,081,292	14,016,708
Newcastle	729,167	1,024,318	1,753,485	765,083	1,834,045	12,884	1,846,929
Other Ports	178,705	224,209	402,914	2,955,637	5,937,641	170,969	6,108,610
Total	2,804,549	2,842,635	5,647,184	20,776,526	17,707,102	4,265,145	21,972,247
Victoria—							
Melbourne	2,128,726	2,030,047	4,158,773	13,616,498	10,060,326	2,694,207	12,754,533
Geelong	32,453	120,591	153,044	202,936	646,578	2,170	648,748
Other Ports	63,345	80,964	144,309	3,355,111	703,904	107,361	811,265
Total	2,224,524	2,231,602	4,456,126	17,174,545	11,410,808	2,803,738	14,214,546
Queensland—							
Brisbane	374,446	369,761	744,207	2,591,331	1,940,400	106,469	2,046,869
Townsville	277,042	276,406	553,448	589,190	1,732,080	7,346	1,739,426
Rockhampton	235,171	242,989	478,160	414,641	2,665,347	2,472	2,667,819
Cooktown	181,887	184,007	365,894	56,923	87,391	21,477	108,868
Other Ports	735,935	646,314	1,382,249	730,572	2,585,395	22,031	2,607,426
Total	1,804,481	1,719,477	3,523,958	4,382,657	9,010,613	159,795	9,170,408
South Australia—							
Adelaide	980,997	942,914	1,923,911	3,773,060	2,013,018	2,116,821	4,129,839
Port Pirie	132,970	150,064	283,034	496,627	201,624	1,440,476	1,642,100
Port Augusta	19,744	26,237	45,981	21,635	351,021	27,421	378,442
Other Ports	68,557	61,780	130,337	3,103,856	666,596	1,002,562	1,669,158
Total	1,202,268	1,180,995	2,383,263	7,395,178	3,232,259	4,587,280	7,819,539
Western Australia—							
Albany	482,680	482,463	965,143	135,907	100,760	.....	100,760
Freemantle	56,408	37,696	94,104	880,503	291,191	11,072	302,263
Other Ports	33,002	32,316	65,318	374,699	478,863	262	479,125
Total	572,090	552,475	1,124,565	1,391,109	870,814	11,334	882,148
Tasmania—							
Hobart	359,858	356,497	716,355	744,011	.....	.....	518,381
Launceston	139,757	147,984	287,741	621,650	.....	.....	715,522
Other Ports	66,923	66,121	133,044	131,500	.....	.....	113,062
Total	566,538	570,602	1,137,140	1,497,161	1,330,144	16,821	1,346,965
New Zealand—							
Auckland	229,138	181,349	410,487	1,642,686	1,125,865	89,013	1,214,878
Wellington	156,057	117,431	273,488	1,527,186	1,303,621	13,261	1,316,882
Invercargill	92,930	107,542	200,472	201,553	692,433	1,117	693,550
Lyttelton & Christchurch	68,638	126,544	195,182	1,206,080	1,824,104	39,152	1,863,256
Dunedin	78,271	48,782	127,053	1,618,567	1,132,780	19,869	1,152,649
Other Ports	50,189	74,452	124,641	746,984	3,287,065	6,571	3,293,636
Total	675,223	656,100	1,331,323	6,943,056	9,365,868	168,983	9,534,851
Total for Australasia	8,536,061	8,515,968	17,052,029	59,560,232	52,927,608	12,013,096	64,940,704
Total External	3,194,133	3,067,009	6,261,142	34,349,363	.....	.....	40,736,457

The following table shows the tonnage and trade for 1892, distributed in four important divisions :— Distribution of tonnage and trade.

TONNAGE.

Colony.	External Tonnage.				Australasian Colonies.	Total.
	United Kingdom.	British Possessions outside Australasia.	Foreign Countries.	Total.		
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
New South Wales..	841,705	363,440	1,131,431	2,336,576	3,310,608	5,647,184
Victoria	709,549	146,842	371,802	1,228,193	3,227,933	4,456,126
Queensland	179,919	100,159	79,271	359,349	613,079	972,428
South Australia ..	587,359	124,569	277,212	989,140	1,394,123	2,383,263
Western Australia	252,961	163,482	126,733	543,176	581,389	1,124,565
Tasmania	138,458	772	2,514	141,744	995,396	1,137,140
New Zealand	481,865	20,844	160,255	662,964	668,359	1,331,323
Australasia ..	3,191,816	920,108	2,149,218	6,261,142	10,790,887	17,052,029

TRADE.

Colony.	External Trade.				Australasian Colonies.	Total.
	United Kingdom.	British Possessions outside Australasia.	Foreign Countries.	Total.		
	£	£	£	£	£	£
New South Wales..	16,537,898	1,059,260	7,032,745	24,629,903	18,118,870	42,748,773
Victoria.....	14,458,182	1,113,160	4,729,900	20,301,242	11,087,849	31,389,091
Queensland	6,146,296	191,842	230,608	6,568,746	6,984,319	13,553,065
South Australia ..	5,539,483	936,034	1,075,452	7,550,969	7,663,748	15,214,717
Western Australia	1,089,603	227,969	57,950	1,375,522	897,735	2,273,257
Tasmania	857,455	1,314	18,836	877,605	1,966,521	2,844,126
New Zealand	12,251,987	288,350	1,241,496	13,781,833	2,696,074	16,477,907
Australasia ..	56,880,904	3,817,929	14,386,987	75,085,820	49,415,116	124,500,936

RAILWAYS.

Necessity for railways in Australasia.

IN a country such as Australasia, ill supplied with navigable rivers, the furtherance of railway construction is absolutely necessary to its proper development. This was recognized from an early period, but the difficulty of obtaining money at anything but a prohibitory interest long stood in the way of railway construction. Nevertheless, as will be seen, very considerable progress has been made, especially of late years, and by far the greater portion of the Public Debt of Australasia has been contracted for railway purposes. As the extent of territory in Australasia almost equals that of Europe or the United States of America, while the population numbers less than four millions, it is almost needless to say that many of the lines run through districts very sparsely peopled. This is particularly the case with Queensland, South Australia, and Western Australia, where there are vast tracts of territory in which little in the nature of permanent settlement has yet been accomplished; and in none of the Colonies can it be said that the railway lines traverse thickly settled areas.

Return yielded by Australasian railways.

Notwithstanding these drawbacks the Railways of Australasia collectively yield a net return equal to 3 per cent. on the outlay.

Railways managed by Commissioners.

The colonies of Victoria, South Australia, New Zealand, New South Wales, and Queensland have found it expedient to place the management and maintenance of railways under the control of Commissioners. Victoria, in 1883, was the first colony to adopt this system; four years later South Australia and New Zealand saw the wisdom of the change, while New South Wales and Queensland followed in 1888. Each of these colonies has appointed three officials as Commissioners, and has conferred upon them by law large executive powers, amounting to almost independent control, the object aimed at being to obtain economic management free from political interference.

Parliamentary Committees on proposed railways.

In New South Wales and Victoria an additional safeguard in railway construction prevails. All proposed new lines before being sanctioned are submitted to a committee selected from Members of both Houses of Parliament. These committees take evidence as to the suitability of the route proposed, the prospect of the line paying, and the plan of construction, and upon the evidence taken draw up reports for or against the schemes proposed. This careful supervision of railway development has already been attended with success, and, as it is a matter of regret, that such committees were not earlier constituted, as probably the colonies would have been saved much useless railway construction.

Introduction of Railways.

The question of establishing railway communication with the interior from Sydney was agitated as far back as 1846, but it was not until the enormous accession to the population of these lands, which followed upon the discoveries of gold, that the matter was carried to a successful issue. The earliest railways were begun almost at the same time in New South Wales and Victoria. The works were, indeed, actually first commenced in New South Wales, but the first railway line opened for traffic was the Melbourne and Hobson's Bay line in 1854, 2½ miles in length. No further extensions were opened in Victoria until 1857. In the first instance in both Colonies the construction of the lines was undertaken by private enterprise; but the companies that pioneered the way in regard to railway construction soon found the magnitude of the undertaking beyond the scope of their funds, and it was apparent that only the Government could hope to keep pace with the needs of the country in this direction. The private works already begun in New SouthWales were, therefore, bought up by the Government in 1854, and all such lines fell into Government hands in Victoria one year later; the Hobson's Bay railway, however, was not acquired till 1878. From 1855 the Governments of the two Colonies undertook and carried on the work of railway extension.

History of Railway construction.

In New South Wales 14 miles of railway were placed under traffic in 1855. This was the line from Sydney to Parramatta,

and a further length of 9 miles was added in the following year. The first State railway-works in South Australia were undertaken in 1857; they were begun in New Zealand in 1860; in Queensland in 1864; in Tasmania in 1868; and in Western Australia in 1874.

Increase of railway mileage.

From the humble beginnings mentioned above the mileage of the various systems throughout Australasia had increased to 12,405 in 1892, of which 11,665 miles belong to the State, and 740 miles are under private control. From 1854 to 1863 the mileage opened yearly averaged 40; for the succeeding ten years the average was 110 miles; from 1874 to 1883 it averaged 509 miles; and for the ten years ended with 1892 the average yearly addition was 623 miles. The total mileage opened in Australasia, and the extensions during each year since railways were first undertaken, will be found below :—

Year.	Miles opened.		Year.	Miles opened.	
	Total.	During each year.		Total.	During each year.
1854	2½	2½	1874	1,700	202
1855	16½	14	1875	2,144	444
1856	32½	16	1876	2,678	535
1857	117	84½	1877	3,447	769
1858	132	15	1878	3,976	529
1859	171	39	1879	4,393	417
1860	215	44	1880	4,933	540
1861	242	28	1881	5,526	593
1862	372	130	1882	6,169	643
1863	399	27	1883	6,587	418
1864	474	74	1884	7,425	838
1865	494	21	1885	7,881	456
1866	524	29	1886	8,669	788
1867	718	194	1887	9,498	829
1868	789	71	1888	10,230	732
1869	918	129	1889	11,074	844
1870	1,040	122	1890	11,713	639
1871	1,135	95	1891	12,174	461
1872	1,273	138	1892	12,405	231
1873	1,498	225			

Main Inter-colonial lines.

In 1883 a junction was effected between the New South Wales and Victorian lines at the river Murray; three years later direct

communication was established between Victoria and South Australia, and in 1888 the last mile of line connecting Sydney with the northern colony was completed, thus placing the four Capitals, Brisbane, Sydney, Melbourne, and Adelaide in direct communiation with each other. Proposals have been made to the Government of Western Australia to construct a railway upon the land grant system, connecting the eastern districts of the Colony with South Australia. It is proposed to extend the lines to Eucla, close to the South Australian border, and when that Colony has extended her railways to the same point, Perth will be connected with all the capitals of the Australian Colonies. Should this be carried out, the European mails will, in all likelihood, be landed at Freemantle, and sent overland to the various destinations throughout the continent.

Question of gauge.

Unfortunately no prior agreement was arrived at between the Colonies as to the adoption of an uniform gauge. The Government of New South Wales constructed all their lines upon the English standard gauge of 4 ft. 8½ in., while the Victorian Government adopted the 5ft. 3 in. gauge. Until the lines of the two Colonies met on the boundary no discomfort was of course experienced; but since then the break of gauge, and the consequent change of trains has been a source of irritation and inconvenience. The South Australian Government adopted at the outset the 5 ft. 3 in. gauge of Victoria; but finding that the construction of lines of this gauge involved a heavier expense than they were prepared to face, the more recent lines were built on a gauge of 3 ft. 6 in. In that Colony there are 488 miles laid with the 5 ft. 3 in. gauge, and 1,319 with that of 3 ft. 6 in. The line joining Adelaide with the Victorian border, as well as several of the other trunk-lines have been constructed on the wide gauge, so that the line from Melbourne to Adelaide is uniform. The private line, which prolongs the South Australian system into New South Wales as far as Broken Hill, is on the 3 ft. 6 in. gauge. All the Queensland lines are built on the gauge of 3 ft. 6 in., so that transhipment is necessary on the boundary between that Colony

Evils of diversity of gauge.

and New South Wales. The difficulty caused by this diversity of gauge is already found to be troublesome. It is admitted on all hands that the trouble can be got over only by establishing uniformity of gauge, and every year in which action is delayed will make the establishment of that uniformity more costly. Tasmania, Western Australia, and New Zealand have adopted the 3 ft. 6 in. gauge. The first line laid down in Tasmania was on the 5 ft. 3 in. gauge, but it was soon altered to 3 ft. 6 in. The total length of line in Australasia laid down to a gauge of 5 ft. 3 in. is 3,391 miles; there are 2,185 miles of the 4 ft. 8½ in. gauge, and 6,089 miles of the 3 ft. 6 in. gauge. By the purchase of the Main Line Company's property in 1890, the Tasmanian Government now controls a system of 377 miles of railway open for traffic.

Proportion of miles of line to population and area.

The population and area of territory per mile of line open varies considerably. As regards population per mile of line open, Western Australia, South Australia, and Queensland—the most extensive Colonies—show most favourably; but, in comparison per mile of line open to the area of the territory, Victoria, New Zealand, and Tasmania take the lead. The annexed table shows the relation of the railway mileage to population and to the area of each Colony for the year 1891–92 :—

Colony.	Per mile of line open.	
	Population.	Square miles of territory.
New South Wales	522	137
Victoria	400	30
Queensland	186	288
South Australia	182	500
Western Australia	81	1,613
Tasmania	359	62
New Zealand	315	52
Australasia	317	255

Proportion in other countries.

In the following table are shown the population and area of territory per mile of line open in other countries. Of course a comparison can only be made fairly between Australasia and other young countries in process of development :—

Countries.	Length of Railway.	Population per Mile of Line.	Area per Mile of Line.
	miles.		sq. miles.
United Kingdom	20,191	1,876	6
France	20,666	1,849	10
Germany	25,411	1,945	8
Austria-Hungary	15,854	2,608	15
Belgium	2,810	2,160	4
Netherlands	1,715	2,630	7
Switzerland	1,951	1,503	8
Sweden and Norway	5,869	1,156	50
Spain	5,951	2,948	33
Italy	7,619	4,062	14
India (British)	17,283	12,797	56
Canada (Dominion of)	14,009	345	247
Cape Colony	2,067	739	107
Argentine Republic	7,201	486	155
Brazil	5,546	2,525	580
Chili	1,801	1,403	161
Mexico	4,825	2,411	156
United States of America	171,048	366	21
Australasia	12,405	317	255

Progress of railway construction.

The progress of railway construction, except, perhaps, in the case of Victoria, was anything but rapid during the earlier years. This was in a great measure owing to the sparseness of the population, and the natural fear that the income would not justify the expense of widely extended lines. It was also due in some degree to the low estimation in which Australasian securities were held in London, and the consequent high rate of interest at which money for railway construction had to be borrowed. The initial difficulties attendant on railway construction may be said to have ended about 1871, for since that year progress has been made by all the colonies. The mileage under State and private control for each Colony during each period shown was :—

Colony.	1861.	1866.	1871.	1876.	1881.	1886.	1891-92.
New South Wales	73	143	358	554	1,040	1,941	2,266
Victoria	114	275	276	718	1,247	1,754	2,903
Queensland	*	50	218	298	800	1,433	2,320
South Australia	56	56	133	308	845	1,226	1,823
Western Australia.....	*	*	*	38	92	202	657
Tasmania	*	*	45	45	168	303	425
New Zealand	*	*	105	718	1,334	1,810	2,011
Australasia	243	524	1,135	2,679	5,526	8,669	12,405

* Railways not in existence.

The following table shews the length of Government Railways under construction during 1892 :—

	Miles.		Miles.
New South Wales ...	333	Tasmania	47
Victoria	103	New Zealand	170
Queensland	102		
South Australia	56	Total.....	922
Western Australia...	111		

The figure given above for New South Wales includes the Nyngan to Cobar line, a length of 81 miles, which was opened for traffic in July, 1892.

Notwithstanding the energetic expansion of the railway systems throughout Australasia since 1881, there is still room for considerable extension. In South Australia railway construction is entirely confined to the south-eastern corner and to the extension of the Northern Line, which has its present terminus at Oodnadatta, 686 miles from Adelaide. It is proposed to eventually extend this line as far north as Pine Creek, the southern terminus of the Port Darwin line. When this railway is completed direct overland communication will be established between the northern and southern portions of the continent. The length of the gap between the terminus at Oodnadatta and that at Pine Creek is 1,140 miles on the telegraph route. An English syndicate has lately offered to complete this railway on the land grant system, but so far no decision has been arrived at. In New South Wales the railway extensions will be chiefly confined to perfecting the various systems now constructed. In Queensland, with its vast expanse of partly settled territory and extensive seaboard, the railways are being constructed in separate systems. The lines commence from each of the principal ports and run inland, but there is no doubt that not many years will elapse before these systems will become branches of a main trunk line which in all likelihood will be the Brisbane-Charleville line extended as far as Normanton at the Gulf of Carpentaria. Lately a motion was carried in the Queensland Parliament affirming the desirability of allowing private enterprise to construct in the South, Central, and Northern divisions of the Colony eleven railway lines under the provisions of the Railway Construction Land Subsidy Act.

South Australian Railways.

New South Wales Railways.

Queensland Railways.

In Victoria, Tasmania, and New Zealand, the railways are well developed compared with size of territory, and any future extensions in these colonies will hardly be on as large a scale as those of the other colonies. It is the established policy of each colony to keep the railways under State control, and only in extreme circumstances is that policy departed from. In two of

Victoria, Tasmania, and New Zealand.

the colonies—Victoria and Queensland—the lines are entirely in the hands of the Government, although such was not the case always in the former colony, and in none of the colonies except Western Australia is the extent of private lines considerable when compared with that administered by the State. The following statement shows the gauge and length of the private railways of Australasia :—

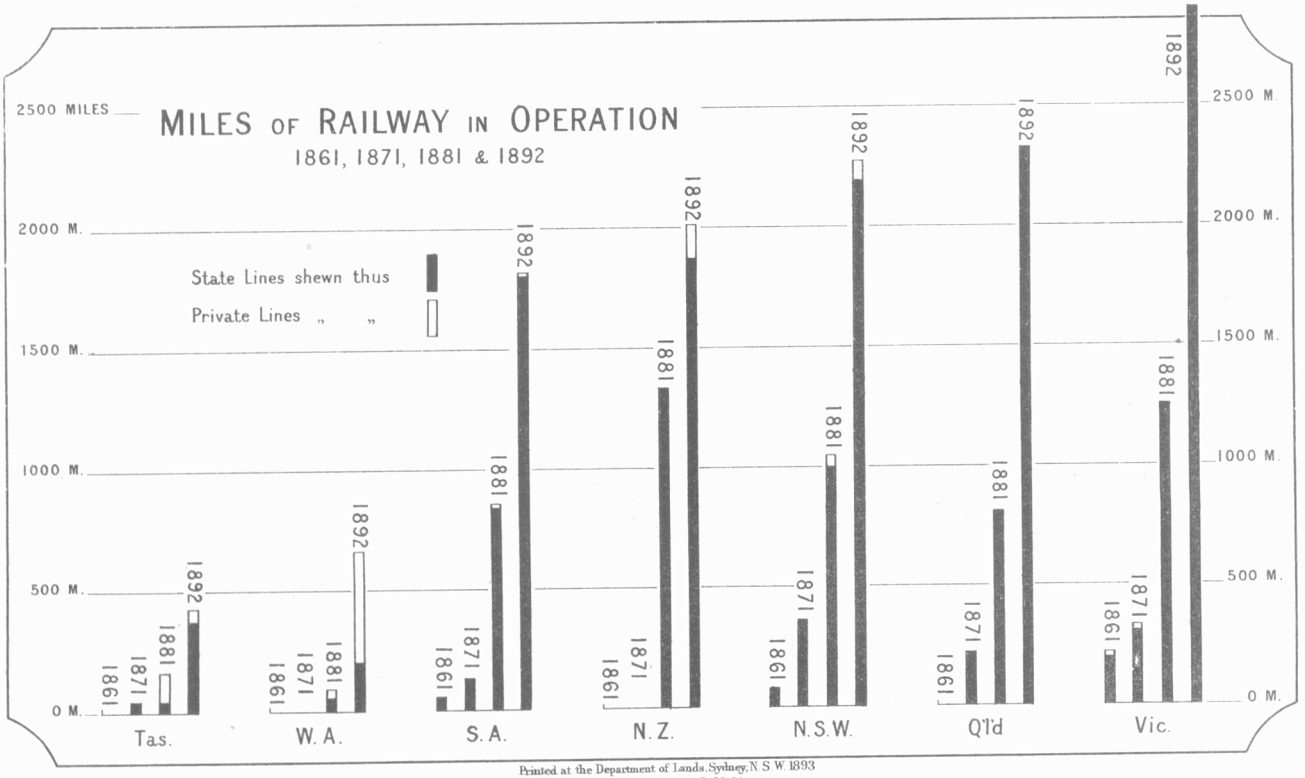
Private Lines.

Colony.	Line of Railway.	Gauge.	Length.
		ft. in.	ms. ch.
New South Wales...	Deniliquin-Moama	5 3	45 0
	Broken Hill-Cockburn	3 6	35 54
South Australia ...	Woodville-Grange	5 3	3 40
	Adelaide-Glenelg (two routes)	3 6	13 0
Western Australia..	Albany-Beverley	3 6	244 0
	Guildford-Walkaway	3 6	100 0
	Great Southern Railway-Torbay	3 6	12 0
	Guildford-Darling Range	3 6	19 62
	Rockingham-Jarrahdale & Inland	3 6	33 0
	Flinders Bay-Inland	3 6	26 0
	Locheville-Timber Stations	3 6	18 0
Tasmania	Emu Bay—Mount Bischoff	3 6	48 0
New Zealand	North Island,—		
	Wellington-Longburn	3 6	84 0
	Stirling-Kaitangata	3 6	4 0
	Middle Island,—		
	Midland Railway Co's. Line	3 6	54 0
	Total	.....	739 76

A proviso has been inserted in the charters of the companies owning the private lines in New South Wales, whereby after a certain date the Government can, if disposed, acquire the lines at a valuation. Similar conditions are found in most of the charters granted by the other Colonies permitting the construction of private lines.

Government railways.

The length of lines under the control of the Governments of Australasia is 11,665 miles, constructed and equipped at a cost of £117,968,937 or an average of £10,113 per mile. The cheapest constructed lines were those of Western Australia, where the average rate has not exceeded £4,441 per mile. In Victoria the



Printed at the Department of Lands, Sydney, N. S. W. 1893
N° of Lithograph D 93.14

figures stand at £12,775, and in New South Wales at £15,246 per mile. The following are the details of the Government railways in Australasia :—

Colony.	Length.	Gauge.	Total cost of construction and equipment.	Average cost per mile.
	miles.	ft. in.	£	£
New South Wales	2,185	4 8½	33,312,608	15,246
Victoria	2,903	5 3	37,085,309	12,775
Queensland	2,320	3 6	16,046,851	6,917
South Australia	1,807	5 3 / 3 6	12,868,467	7,121
Western Australia	204	3 6	905,974	4,441
Tasmania	377	3 6	3,093,037	8,209
New Zealand	1,869	3 6	14,656,691	7,842
Australasia	11,665	.....	117,968,937	10,113

Cost of construction.

It would hardly be fair to institute comparisons between the cost of construction per mile in Australasia and in the densely populated countries of Europe, for while in Europe the resumption of valuable ground is, perhaps, the heaviest expense in connection with the building of railways, in the colonies this item of expenditure is not of leading importance. The cost per mile in certain sparsely settled countries is given thus :—

India (State lines)	£7,116
Canada	11,483
Cape Colony	8,968
United States	11,205

while for Australasia it is £10,113.

Revenue and working expenditure.

Every Colony shows a surplus of revenue over working expenditure, notwithstanding that the avowed object of railway construction in the colonies has been to promote settlement, apart from considerations of profitably working the lines. At the same time the principle has been kept in view that in the main the Railways should be self-supporting.

The net revenue for 1891–92 was as follows :—

Colony.	Gross Revenue.	Working Expenses.	Net Revenue.
	£	£	£
New South Wales	3,107,296	1,914,252	1,193,044
Victoria	3,095,122	2,138,139	956,983
Queensland	1,052,536	639,502	413,034
South Australia	1,228,511	664,606	563,905
Western Australia	67,760	63,884	3,876
Tasmania	169,050	147,944	21,106
New Zealand	1,115,432	706,517	408,915
Australasia	9,835,707	6,274,844	3,560,863

The returns for the first four Colonies are for the year ending 30th June, 1892; New Zealand for 31st March, 1892; and Western Australia and Tasmania for 31st December, 1891.

Proportion of expenses to revenue.

The following table shows the proportion of working expenses to gross revenue for each Colony in 1891–2. In South Australia, New South Wales, and New Zealand the proportion of the working expenses to gross revenue was below the average for Australasia, while all the other Colonies are largely in excess of that figure. In South Australia the lines are now worked at a cost of a little more than one half the receipts, while in Western Australia and Tasmania for every £100 earned the working expenses amount to over £94 and £87 respectively :—

Colony.	Working expenses—Proportion to gross revenue. 1891-92.
	per cent.
New South Wales	61·6
Victoria	69·1
Queensland	60·8
South Australia	54·1
Western Australia	94·3
Tasmania	87·5
New Zealand	63·3
Australasia	63·8

The average interest payable on all Australasian loans is 3·99 per cent., and the returns yielded by the railways is 3·02 per cent., showing a loss in working of 0·97 per cent., equivalent to £1,144,300. The figures are :— Returns yielded by railways.

Colony.	Interest returned on Capital.	Average interest payable on Capital Expenditure.	Average loss.
	per cent.	per cent.	per cent.
New South Wales	3·58	3·82	0·24
Victoria	2·58	3·99	1·41
Queensland	2·57	3·93	1·36
South Australia	4·38	4·08	0·30†
Western Australia	0·43	4·09	3·66
Tasmania	0·68	4·19	3·51
New Zealand	2·79	4·16	1·37
Australasia	3·02	3·99	0·97

† Represents profit.

The rate of return on capital which is shown in the foregoing table represents the interest on the gross cost of the lines. In some cases the nominal amount of outstanding debentures is less than the actual expenditure on construction and equipment, owing to the fact that in these cases some loans have been redeemed, but as the redemption has been effected by means of fresh loans charged to general services, or by payments from the general revenue, and not out of railway earnings, no allowance on this account can reasonably be made.

South Australia is the only colony showing a net profit after paying for interest on construction, while the loss in the other colonies ranges from 0·24 per cent. in New South Wales to 3·66 in Western Australia. The Victorian railways in 1886 yielded 4·18 per cent., but through the extension of unprofitable lines the rate for the year ending June, 1892, had declined to 2·58 per cent. It is expected by the Victorian Commissioners that, with a rest in construction for some years, the equilibrium between net revenue and the interest payable would be accomplished. Profit and loss on railways.

The subjoined table shows the rate per cent. realized on capital expenditure for the last five years for those colonies where the management is under the administration of Commissioners :—

Colony.	1887-8.	1888-9.	1889-90.	1890-1.	1891-2.
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
New South Wales	2·85	3·14	3·18	3·60	3·58
Victoria	3·56	3·73	2·91	2·72	2·58
Queensland	2·75	0·84	1·70	1·74	2·57
South Australia	4·80	4·05	5·03	5·32	4·38
New Zealand	2·30	2·60	2·97	2·95	2·79

The following table shows the gross earnings, expenditure, and net profit per average mile open. In 1881 the New South Wales railways yielded 5·31 per cent.—a higher rate of interest on the capital cost than was ever reached before or since. In the same year the Victorian lines yielded a return of 4·04 per cent., which is the highest on record with the exception of 4·18 in the year 1886, as already mentioned. The decline in the net profits is largely due to the extension of the lines in sparsely populated districts. There is no doubt that with more limited extensions of this class, before long the Colonies will equalise the difference between net revenue and the interest on capital cost. The returns per average mile open were :—

Returns per mile open.

Colony.	Gross Earnings.		Expenditure.		Net Profit per Average Mile open.	
	1886.	1891-2.	1886.	1891-2.	1886.	1891-2.
	£	£	£	£	£	£
New South Wales	1,207	1,423	834	877	373	546
Victoria	1,377	1,094	775	756	602	338
Queensland	447	458	308	278	139	180
South Australia	505	679	341	368	164	311
Western Australia	238	334	295	315	—57	19
Tasmania	433	458	358	401	75	57
New Zealand	649	598	428	379	221	219
Australasia	859	851	517	543	342	308

NOTE. (—) denotes loss.

The following is a co-relative table showing the returns per train mile :— Returns per train mile.

Colony.	Gross Earnings.		Expenditure.		Net Profit per Train Mile.	
	1886.	1891-2.	1886.	1891-2.	1886.	1891-2.
	d.	d.	d.	d.	d.	d.
New South Wales	80·01	89·25	55·30	54·98	24·71	34·27
Victoria	77·03	62·91	33·69	43·45	43·34	19·46
Queensland	62·50	63·75	43·00	38·75	19·50	25·00
South Australia	67·52	70·04	45·57	37·79	21·95	32·25
Western Australia	30·52	48·48	37·90	45·70	—7·38	2·78
Tasmania	49·10	44·64	40·60	39·07	8·50	5·57
New Zealand	83·22	88·92	54·85	56·32	28·37	32·60
Australasia	75·26	72·42	45·33	46·20	29·93	26·22

NOTE. (—) denotes loss.

In some of the colonies the railways pass through heavy and mountainous country, involving steep gradients. This is particularly the case in New South Wales, where the lines are most exceptional in their character, having been constructed with an unusual proportion of steep gradients, the worst being on the trunk lines, and so situated that the whole of the traffic has to pass over them. In the Southern system the line at Cooma reaches an altitude of 2,659 feet above the sea-level; on the Western, at the Clarence station, Blue Mountains, a height of 3,658 feet is attained; while on the Northern line the highest point, 4,471 feet, is reached at Ben Lomond. In no other colony of the group do the lines attain such an altitude. In Queensland the maximum height is 3,008 feet; in Victoria, 2,452 feet; in South Australia, 1,970 feet; and in New Zealand, 1,252 feet. In the colonies where heavy gradients prevail the working expenditure must necessarily be heavier than in the colonies where the surface configuration is more level. Railways through difficult country.

The interest on capital cost, the proportion of working expenses to the gross revenue, and the returns per train mile for some of Returns from railway compared.

the principal countries, is given below. The figures refer either to the years 1890 or 1891 :—

Country.	Capital Cost.			Working Expenses : Proportion to Gross Revenue.	Per Train Mile.		
	Total.	Per Mile Open.	Return Per Cent.		Gross Revenue.	Working Expenses.	Net Revenue.
	£	£	P. Cent	Per Cent.	s. d.	s. d.	s d.
United Kingdom.	919,425,421	45,536	4·0	55·0	5 0¾	2 9½	2 3¼
France	569,080,000	27,375	3·9	52·5	6 0	3 2	2 10
Germany	512,951,000	20,201	5·6	55·3	6 6½	3 6¼	3 0¼
Austria-Hungary	305,042,000	19,516	3·4	53·1	6 2¾	3 3½	2 11¼
Belgium	57,157,721	28,271	4·0	59·2	4 7	2 8¾	1 10¼
United States ..	1,831,088,000	11,205	3·9	68·5	5 8½	3 10½	1 10
Canada	168,034,518	11,483	1·6	73·0	4 6¾	3 3¾	1 3
Cape Colony	16,949,722	8,968	4·6	58·9	6 6	3 10	2 8
Australasia	117,968,937	10,113	3·0	63·8	6 0½	3 10¼	2 2¼

Number of passengers carried.

The number of passengers carried on the Victorian lines is largely in excess of that of New South Wales, due in a large measure to the complete suburban system prevailing in the former Colony, which places the principal suburbs in direct communication with the metropolis. In the year ending June, 1892, the number of passengers carried on the suburban lines of Victoria was 34,396,325, while for the corresponding service in New South Wales for the same period it was only 16,966,855.

Passenger traffic of each Colony.

The following table shows the number of passengers carried on the Government lines of each of the colonies in 1881 and 1891–92, and are quoted from the official returns of the various railway departments :—

Colony.	Passengers carried.	
	1881.	1891-92.
	Number.	Number.
New South Wales	6,907,312	19,918,916
Victoria	18,973,070	69,546,921
Queensland	247,284	2,370,219
South Australia	3,032,714	5,749,028
Western Australia	67,144	508,304
Tasmania	102,495	725,724
New Zealand	2,911,477	3,555,764
Australasia	32,241,496	102,374,876

The Queensland and New Zealand returns do not include passengers with season tickets.

The amount of goods tonnage is shown in the subjoined table. In the period from 1881 to 1891 there was an increase of about 156 per cent., varying from 71 per cent. in South Australia to 377 per cent. in Queensland :— Proportion of goods traffic.

Colony.	1881.	1891-2.
	Tons.	Tons.
New South Wales	2,033,850	4,296,713
Victoria	1,249,049	3,431,578
Queensland	161,009	768,527
South Australia	646,625	1,106,839
Western Australia	27,816	94,476
Tasmania	44,396	161,141
New Zealand	523,099	2,122,987
Australasia	4,685,844	11,982,261

The percentage of receipts from coaching traffic to the total receipts is about the same in the Australasian Colonies as in Europe. The proportion in the United Kingdom for 1891 was 42·9 per cent. for coaching traffic to 52·8 per cent. for goods traffic, besides which there was 4·3 per cent for miscellaneous receipts, which could not properly be classed under either of the above heads; so that the proportion of receipts from coaching traffic to goods traffic was 44·8 per cent. against 55·2 per cent. The figures for the various colonies are given below :— Receipts from passenger traffic.

Colony.	Coaching Traffic.	Goods Traffic.
	Per cent.	Per cent.
New South Wales	38·3	61·7
Victoria	53·1	46·9
Queensland	33·1	66·9
South Australia	27·8	72·2
Western Australia	42·3	57·7
Tasmania	54·5	45·5
New Zealand	36·4	63·6
Australasia	41·2	58·8

The following table gives the different classes of rolling stock in the possession of the several Australasian Governments during Quantity of rolling stock.

1891–92; and, considerable as are the numbers of each class, they could with advantage be largely increased :—

Colony.	Locomotives.	Passenger Carriages.	Goods Waggons.
New South Wales	489	1,054	10,455
Victoria	462	1,114	8,642
Queensland	271	323	3,885
South Australia	247	338	5,825
Western Australia	28	53	442
Tasmania	52	147	931
New Zealand	266	490	8,257
Australasia	1,815	3,519	38,437

RAILWAY ACCIDENTS.

Classification of casualities.

The persons meeting with accidents on railway lines may be grouped under three heads—passengers, servants of the railways, and trespassers; and the accidents themselves may be classified into those arising from causes beyond the control of the person injured, and those due to misconduct or want of caution. Adopting this classification the accidents during 1891–92 in those Colonies for which returns are available are enumerated below :—

Colony.	Passengers.		Railway Employés.		Trespassers, &c.		Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
New South Wales	17	58	26	163	7	7	50	228
Victoria	6	123	15	178	31	41	52	342
South Australia	2	6	4	32	10	3	16	41
New Zealand	2	9	3	108	4	54	9	171

Comparative freedom from accidents.

The railways of Australasia have been as free from accidents of a serious character as the lines of most other countries. In order

to obtain a common basis of comparison it is usual to find the proportion which the number of persons killed or injured bears to the total passengers carried. There is, however, no necessary connection between the two, for it is obvious that accidents may occur on lines chiefly devoted to goods traffic, and a more reasonable basis would be the accidents to passengers only compared with the number of passengers carried. The data from which such a comparison could be made are wanting for most countries; the following table, therefore, shows the number of all descriptions, including not only passengers and employés, but trespassers, killed or injured on the lines of the most important countries, per million passengers carried :—

Countries.	Average per million passengers carried.	
	Killed.	Injured.
United Kingdom	1·11	8·53
Russia in Europe	11·36	17·60
France	1·71	3·09
Germany	1·65	6·33
Austria-Hungary	4·40	10·43
Belgium	1·98	10·15
Netherlands	2·15	1·64
Switzerland	1·75	5·65
Sweden	3·34	4·51
Norway	1·28	0·90
Denmark	1·28	5·96
Italy	2·29	21·48
India	4·62	8·18
Canada	17·13	65·31
United States	1·5	6·1
New South Wales	2·7	9·0
Victoria	0·9	4·8
South Australia	2·1	4·9
New Zealand	2·9	45·5

Colonial average satisfactory.

It will be seen that the Australasian Colonies stand on a level with the average of the principal European countries. If, however, the more legitimate comparison be made of the proportion of casualties amongst passengers only, fewer countries are available for reference. These are given in the following table : the

figures represent in most cases an average of the last five years for which returns are available :—

Countries.	Average per million passengers.	
	Killed.	Injured.
United Kingdom	0·14	1·89
Russia in Europe	0·63	2·33
France	0·16	0·70
Germany	0·10	0·38
Austria-Hungary	0·10	0·83
Belgium	0·12	1·18
Netherlands	0·08	0·23
Switzerland	0·20	0·63
Sweden	0·16	0·14
Norway	.....	0·07
Italy	0·21	1·84
Canada	1·52	6·18
New South Wales	0·5	2·7
Victoria	0·1	1·8
South Australia	0·3	0·8
New Zealand	0·7	2·3

TRAMWAYS.

Tramways in New South Wales.

In all the Australasian Colonies tramways are in operation, but it is chiefly in Sydney and Melbourne, the inhabitants of which numbered at the latest date 411,710 and 474,810 respectively, that the density of settlement has necessitated the general adoption of this mode of transit. In New South Wales steam motors are mostly used, though there is a length of 1½ miles of cable tram at North Shore, and another cable line is being constructed from King-street, Sydney, to Ocean-street, Woollahra. The length of tram lines open on the 30th June, 1892, was 48 miles, which had cost for construction the sum of £1,099,659. The receipts for the year ended on the same date were £305,090, and the working expenses £248,591, leaving a profit of £56,499, or 5·14 per cent.

Victoria. In Victoria the cable system is in operation in the metropolitan area, the lines having been constructed by a municipal trust at a cost of £1,671,966. The tramways are leased to a company, and the receipts for the year ending 31st December, 1891, were £511,915. In addition to these lines, there are 19¼ miles of horse tramway in Victoria.

Queensland. In Queensland there is a system of horse trams, controlled by a private company. The liabilities at the 30th September, 1891, were £148,901, and the assets £147,546; the receipts for the year ending in the same date were £17,998, and the expenses £19,081. The number of horses owned by the company was 387, and cars 51.

South Australia. In South Australia there are no Government tramways, but horse trams are run in the principal streets of Adelaide by private companies. No particulars have been collected respecting the length of these lines, nor of the returns therefrom.

Western Australia. The Western Australian Government owns a line of horse tramway between Roeburne and Cossack, a length of 8 miles. The total receipts for 1891 were £2,603 and the expenditure amounted to £2,108.

Tasmania. In Tasmania a private company maintains a line of horse tramway, 11 miles in length, between Don and Barrington, on the north-west coast. The cost was £9,926, the receipts in 1891 came to £1,169, and the expenditure £1,194. Passengers are carried free of charge on this line. The average number of horses employed was 10 and vehicles 9.

New Zealand. There are also tramways in existence in New Zealand under private management, but no particulars are at present available.

POST AND TELEGRAPHS.

POSTAL SERVICE.

First post office.

THE first Australasian post-office was established by Governor Macquarie in the year 1810, Mr. Isaac Nichols being appointed Postmaster. The office was in High-street (now known as George-street), Sydney, at the residence of Mr. Nichols, who was, "in consideration of the trouble and expense attendant upon this duty," allowed to charge on delivery to parties addressed, 8d. for every English or foreign letter of whatever weight, and for every parcel weighing not more than 20 lb., 1s. 6d.; but exceeding that weight, 3s. The charge on Colonial letters was 4d., irrespective of weight; and soldiers' letters, or those addressed to their wives, were charged 1d. Very little improvement in regard to postal matters took

First Postal Act.

place for some years. In 1825 an Act was passed by Sir Thomas Brisbane, with the advice of the Council, "to regulate the postage of letters in New South Wales," giving power for the establishment of post-offices, and to fix the rates of postage.

Early postage rates.

It was, however, not until 1828 that the provisions of the Act were put into full force. The rates of postage appear to have depended upon the distance and the difficulty of transmission. The lowest single inland rate was 3d., and the highest 12d., the postage on a letter increasing according to its weight, which was fixed for a single letter at $\frac{1}{4}$-ounce. Letters between New South Wales and Van Diemen's Land were charged 3d. each (ship rate), and newspapers 1d. Other ship letters were charged 4d. single

Franking.

rate, and 6d. for any weight in excess. The privilege of franking

was allowed to the Governor and a number of the chief public officials, and letters to and from convicts passed free under certain regulations.

In 1831 a two-penny post was established in Sydney, and in 1835, under Sir Richard Bourke, the Act of 1825 was repealed and another Act was passed, which fixed the charge on a single letter at 4d. for 15 miles, 5d. for 20 miles, 6d. for 30 miles, and so on up to 1s. for 300 miles. In 1837 a post-office was established in Melbourne, which was then of course a part of New South Wales. Stamps were introduced in the same year in the shape of stamped covers or envelopes, which are believed to have been the first postage-stamps ever issued.

Sir Richard Bourke's Postal Act.

Stamped covers.

Regular steam mail communication with England was first established in 1852 ; prior to that time the Colony had to depend upon the irregular arrival and despatch of sailing vessels, but in that year the steamships "Australia," "Chusan," and "Great Britain" were despatched from England, making the voyage in 60 days, causing a strong desire in the minds of the Colonists for a more frequent and steady system of communication with the Old World. The outbreak of the Crimean War in 1854 hindered for a while the accomplishment of this object, but in 1856 a line of steamers was again laid on, and the service was carried on by the Peninsular and Oriental Company, and the Royal Mail Company for some years, without giving so much satisfaction to the public as might have been expected.

First mail steamer.

As far back as 1854 a proposal was made for the establishment of a line of mail packets *via* Panama, and negotiations on the subject were carried on for several years between the Government of the United Kingdom and those of New South Wales and New Zealand. The result was that in 1866 the line was started, and continued in operation until the end of 1868, when it was terminated through the failure of the company by which it had been carried out. In the following year New South Wales, in conjunction with New Zealand, inaugurated a mail service *via*

The Panama line.

San Francisco route.

San Francisco, which, with a few interruptions and under various conditions, has been continued up to the present time. The contract expired in November, 1890, but was renewed during 1891 for one year only by the New Zealand Government, and the steamers still make Sydney their terminns, without any subsidy as far as New South Wales is concerned. The service is still in existence in 1893.

Mail service *via* Suez.

The establishment of a mail route *via* America had the effect of stimulating the steamship-owners who were engaged in the service *via* Suez, and from that time there was a marked improvement in the steamers employed, as well as in the punctuality and speed with which the mails were delivered. The Peninsular and Oriental Company have carried mails for the colonies almost from the inception of the ocean steam service, with very few interruptions. Towards the end of 1878 the Orient Company commenced carrying mails between Australia and the United Kingdom, and has continued to do so ever since. In the year 1883 the fine steamers of the Messageries Maritimes of France entered the service, to be followed in 1887, by the North German Lloyd's, so that there are now sometimes two mails received and despatched every week, and a voyage to Europe, which was formerly a formidable undertaking, involving great loss of time and much discomfort, is regarded as a mere pleasure trip to fill up a holiday.

French and German steamers.

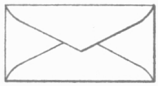
Letters and papers carried.

The following statement gives the number of letters and newspapers passing, in 1861, through the post-offices of the various Colonies. It will be seen on comparing these figures with those in the next table that the number of letters for all Australasia in 1861 was less than is now transacted by any individual Colony, Tasmania and Western Australia excepted. It should be explained that, while the figures quoted show correctly the postal business of each individual Colony, the total number of letters and newspapers for Australasia as returned is too large, the intercolonial mails being counted twice over—that is, both at the Colony they

LETTERS CARRIED

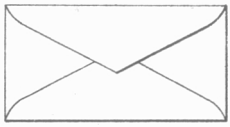
POST-CARDS INCLUDED

1861



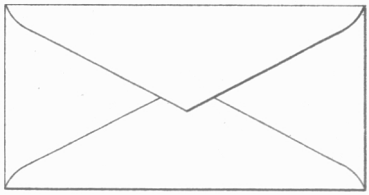
№ 14,061,000

1871



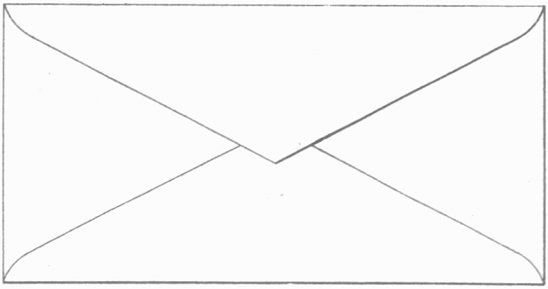
№ 30,435,300

1881



№ 80,791,700

1891



№ 183,694,900

Printed at the Department of Lands, Sydney, N.S.W. 1893
No. of Lithograph D 93 10

are sent from and at the Colony they are delivered at. In this table, as well as in the following one, a second total has been given, from which this Intercolonial excess is excluded, so as to represent the amount of postage business actually transacted in the year 1861 :—

Colony.	No. of Post Offices.	Letters.	Newspapers.
New South Wales	340	4,369,463	3,384,245
Victoria	369	6,109,929	4,277,179
Queensland	24	515,211	427,489
South Australia	160	1,540,472	1,089,424
Western Australia	...	193,317	137,476
Tasmania	100	835,873	895,656
New Zealand	...	1,236,768	1,428,351
Australasia	...	14,801,033	11,639,820
Australasia (Intercolonial excess excluded)	...	14,061,000	10,941,400

Postal business.

The following shows the postal business of each of the colonies during 1891, the number of letters, &c., being obtained by adding inland letters passing through the office, and thus counted once, to Intercolonial and Foreign letters, &c., received and despatched ; with a similar correction to that made in the previous table :—

Colony.	Post Offices.	Letters and Post Cards.	Books, Parcels, and Packages.	Newspapers.	Revenue.
					£
New South Wales	1,384	64,153,600	11,068,500	42,517,300	443,878
Victoria	1,671	62,526,448	7,684,915	22,729,005	*323,344
Queensland	903	15,345,842	2,491,957	11,896,148	121,689
South Australia	629	17,836,092	1,314,724	8,883,103	111,238
Western Australia	84	3,192,992	322,419	1,665,862	17,573
Tasmania	328	5,852,381	1,305,859	5,376,142	53,500
New Zealand	1,231	26,537,545	5,039,873	11,312,200	197,910
Australasia	6,230	195,444,900	29,228,247	104,379,760	1,269,132
Australasia (Intercolonial excess excluded)	....	183,694,900	23,228,247	95,879,760	.....

* Approximate.

The figures given for Victoria, excepting revenue, are those for 1890, similar information for 1891 not being compiled by the postal authorities of that Colony.

Of the totals given for Australasia, 166,861,408 letters and post-cards; 20,736,387 books, parcels, and packages; and 79,197,814 newspapers were "inland," that is, they were posted and delivered within the same Colony, while 28,583,492 letters, 8,491,860 parcels, and 25,181,946 newspapers were received from or despatched to places beyond the Colony. Every article is thus counted once by each Colony through whose post-office it passes.

During 1890 the number of letters passing through the post-offices of New South Wales was less than that of Victoria, but in 1891 the New South Wales total increased by nearly 6,000,000. No comparison can be made with Victorian figures for the same year, owing to the absence of the returns of the latter Colony.

Effect of reduced postage.

The increase in Victoria in 1890 over that of the preceding year amounted to nearly fourteen and a half millions, a circumstance almost entirely due to the reduction of fee from 2d. to 1d. on all letters posted in the Colony for delivery within its boundaries. In New South Wales and Tasmania newspapers were carried free within the Colony during 1891, which largely extended their circulation through the post, but in all the other colonies a small fee was charged. The following table shows the number of letters and post-cards, books, &c., and newspapers per head during 1891. Western Australia and Victoria take the lead in respect to letters, but New South Wales and Tasmania stand foremost as regards newspapers:—

Colony.	Number per Inhabitant.		
	Letters, &c.	Books, Parcels, &c.	Newspapers.
New South Wales	55	9	37
Victoria	56	7	20
Queensland	38	6	29
South Australia	55	4	28
Western Australia	63	6	33
Tasmania	39	9	36
New Zealand	42	8	18

Postal business in other countries.

The following table shows the number of letters and post-cards per head in some of the principal countries of the world. With the exception of the United Kingdom the extent of the correspondence in Australasia largely exceeds that of any of the countries named. In this table also the total for Australasia has been corrected by the elimination of the Intercolonial excess :—

Country.	Number of Letters and Post-cards per head of Population.	Country.	Number of Letters and Post-cards per head of Population.
United Kingdom ...	53	Austria	22
France	18	Switzerland	35
Belgium	25	Italy	6
Netherlands.....	22	Spain	6
Germany	27	Portugal.....	6
Denmark	22	Canada	24
Sweden.....	24	Cape Colony	9
Norway	13	Australasia	48
Russia	2		

Postal facilities in Australasia.

The following table illustrates the extent of the postal facilities in regard to the number of inhabitants, and the square miles of territory to each post-office. It will be seen that Western Australia has one office to every 634 persons, while New South Wales, with the largest postal business of the colonies, has the least number of offices compared with population; Western Australia, the least when compared with territory :—

Colony.	Number of Inhabitants to each Post Office.	Number of Square Miles of Territory to each Office.
	Number.	Square Miles.
New South Wales	844	224
Victoria	670	51
Queensland	454	740
South Australia	518	1,325
Western Australia.....	634	12,621
Tasmania	465	80
New Zealand	515	85
Australasia	620	503

Ocean mail services.

All the colonies, with the exception of New Zealand, have, in conjunction with the Imperial Government, entered into an agreement with the Peninsular and Oriental, and the Orient Steam Navigation Companies. Under this contract, which will expire on the 31st January, 1895, the two Companies have undertaken a weekly mail service for a yearly subsidy of £170,000. This subsidy is made up by a contribution of £95,000 from the Imperial Government, and of £75,000 from the six contracting colonies, distributed on the basis of population as follows:—

Colony.	Amount of Subsidy, 1891.
	£
New South Wales	26,675
Victoria	26,383
Queensland	9,706
South Australia	7,579
Tasmania	3,596
Western Australia	1,061
Total	75,000

The estimated net cost to be made good from revenue in New South Wales was £13,729 against £564 in 1890, while the cost of this service to Queensland amounted to £9,688. Victoria, after paying her share of the subsidy, had a deficit of £7,853. Returns for the other colonies are unfortunately not available.

Time of service *via* Suez.

The mail service has been performed with great regularity and expedition. The average time of both services in 1891 was:—

	Days.
London to Sydney	$34\frac{3}{6}\frac{n}{3}$
Sydney to London	$34\frac{9}{13}$

Mail service *via* San Francisco.

In addition to the federal ocean mail service *via* Suez, New South Wales and New Zealand, until November, 1890, subsidised the Union Steamship Company for a four-weekly service, *via* San Francisco, to the amount of £37,000, of which New South Wales paid £25,750, and New Zealand £11,250. The cost of

this service during 1891 was £349 to New South Wales, £171 to Victoria, and £462 to Queensland, and £3,455 to New Zealand. The New Zealand Shipping Company is also under contract to carry mails from New Zealand to the United Kingdom, and the cost of this service during 1891 was £2,691. The average time during the same year by the San Francisco route was :— Time by the American service.

	Days.
London to Sydney	$40\frac{1}{13}$
Sydney to London	$37\frac{10}{13}$

The British India Steam Navigation Company, sailing from Brisbane, *via* Torres Straits, carry mails under contract with the Queensland Government. This route is from four to ten days longer than those previously mentioned, mails in 1891 having occupied about 44 days in transit. Queensland, under the former contract, paid the company an annual subsidy of £55,000. This contract ceased in January, 1890, and under a new contract the Colony agreed to pay the company an annual subsidy of £19,800 for a four-weekly, or £32,500 for a fortnightly service. The latter service was commenced on 1st July, 1890, the monthly service having lasted nearly six months; but in November, 1891, the contractors, on account of the heavy losses under the fortnightly system, were allowed to revert to the four-weekly service for twelve months from 22nd December, 1891, the subsidy being reduced to the smaller amount mentioned above, viz., £19,800. The cost of English mails by this line in 1891 was £24,201. Torres Straits Route.

Besides those mentioned the other steamship companies trading with the Australasian Colonies carry mails, notably the Messageries Maritimes Company and the North German Lloyd, sailing from Sydney, and the Shaw, Saville, and Albion Company, sailing from Lyttelton, *via* Magellan Straits. The companies are paid by the Colonies in proportion to the weight of mail matter carried, but the Messageries Maritimes Company and the North German Lloyd are in receipt of large subsidies from the French and German Governments respectively. The Nippon Yusen Kaisha, a Japan Mail Steamship Company, purposes shortly running a line French and German mail steamers.

of fast steamers between Japan, China, and the Colonies. It is understood that the enterprise will be subsidized by the Japanese Government. A monthly mail service from Sydney and Brisbane, *via* Vancouver, has just been initiated by Mr. James Huddart.

Vancouver mail service.

The postage to the United Kingdom was reduced in January, 1891, from 6d. per ½ oz. *via* Italy, and 4d. *via* the long sea route, to the uniform rate of 2½d. In 1891 the Colonies were represented at the Congress of the Universal Postal Union held in Vienna, and on July 4th, a convention was signed on their behalf, by which they joined the Union from October 1st, 1891. From that date the rate of postage to all British Colonies and possessions and foreign countries included in the Union was reduced to 2½d. As was to be expected, the immediate result of the alteration was a reduction in revenue, but it is confidently anticipated that so far as these Colonies are concerned, the time is not far distant when the revenue from this branch of postal service will reach its original volume.

Universal Postal Union.

A common scale of postage on newspapers has been adopted by New South Wales, Victoria, Queensland, South Australia, and New Zealand, and it is considered probable that before long the two remaining colonies of Australasia will join in the arrangement. It has been provided that newspapers for the United Kingdom shall be subject to a charge of 1d., irrespective of weight, and to all places beyond Australasia, except the United Kingdom, the same rate for every 4 oz., with an additional ½d. for every 2 oz. over that weight. By a recent change in the postal laws of Queensland newspapers, which previously were transmitted from New South Wales and Tasmania to that colony free of charge, were subjected to a charge of 1d. for every 10 oz. on delivery in Queensland, unless prepaid at the rate of ½d. for 10 oz. in the country of origin.

Newspaper postage.

The number of registered letters passing through the post offices of the Australasian Colonies has largely increased of late

Registered letters.

years, and in New South Wales the number in 1891 was no less than 1,047,080, an increase of 266,878 over the total in 1890. This large increase is not a natural growth, but arises chiefly from correspondence relating to so-called "consultations" or lottery sweeps connected with horse-racing, which are established in Sydney, and to support which large sums of money are sent to that city from all parts of Australasia, and also from other countries. Probably not less than 600,000 of the total for 1891 in New South Wales were associated with these "sweeps." The Government of New South Wales proposes to deal with this evil in an amending Postal Bill. It has been estimated by the late Postmaster-General of Victoria that nearly £100,000 of the Colony's money is sent to New South Wales annually to be distributed in these sweeps.

Parcels post.

All the Colonies, with the exception of New South Wales, have systems of intercolonial parcels post in operation, and in the latter Colony steps are being taken to secure the necessary legislation for the inauguration of this useful branch of the postal service.

Postal Conference at Brisbane.

An Intercolonial Postal Conference was commenced in Brisbane on the 20th March, 1893, at which matters of detail, both ministerial and departmental, in connection with postal and telegraph business were considered. The whole of the seven Australasian Colonies were represented, and agreement was arrived at with regard to several matters of detail.

TELEGRAPHS.

Telegraphic communication in Australasia.

In no country in the world has the development of telegraphic communication been so rapid as in Australasia, and in none has it been taken advantage of by the public to anything like the same extent. Taking Australasia as a whole, there are only four countries in the world that possess a greater extent of telegraph lines, and only five in which a larger number of messages are actually sent. In no other country, however, does the number of

Number of messages sent.

messages bear anything approaching the same ratio to the population. The following table illustrates these remarks:—

Country.	Length of telegraph lines (poles).	Messages.	Messages per head of population.
	Miles.	No.	No.
United Kingdom	31,824	69,685,000	1·8
France*	60,910	29,307,000	0·8
Belgium*	4,265	5,312,000	0·9
Netherlands	3,257	4,286,000	0·9
Germany	62,007	27,728,000	0·6
Denmark	2,794	1,503,000	0·7
Sweden	5,456	1,755,000	0·4
Norway	4,710	1,454,000	0·7
Russia	74,276	9,949,000	0·1
Austria-Hungary	39,354	13,546,000	0·3
Switzerland	4,418	3,612,500	1·2
Italy	22,523	8,176,000	0·3
Spain	14,710	4,085,000	0·3
Portugal	3,191	1,730,000	0·4
United States	187,981	59,148,000	0·9
Canada	30,987	4,368,000	0·9
Cape Colony	4,920	1,317,000	0·9
Australasia (Intercolonial excess excluded.)	44,855	11,069,800	2·9

* Government lines only.

The totals of the telegrams of the Australasian Colonies amount to 12,269,800; from this number has been deducted 1,200,000, to avoid the counting of Intercolonial telegrams, both in the despatching and the receiving Colonies. From the above table it appears that the population of Australasia sent nearly three

Number of messages per head.

messages through the telegraph in the year for each inhabitant. In the United Kingdom the number was about one and three-quarters to each inhabitant; in the United States of America about one message for every inhabitant. The return for the United States includes only the lines of the Western Union Company, who own the principal part of the United States telegraph system. In France and Belgium one message and a-half was sent for every two persons; in Germany one message for every two persons; in Austria-Hungary, Italy, and Spain, rather more than one message for every four persons. In Canada and the Cape Colony less than one message is sent for every inhabitant in each year.

First Telegraph Lines.

The electric telegraph was introduced into these Colonies almost at the time of the earliest railway construction. The first telegraph messages were sent in New South Wales in 1851. In Victoria the telegraph line from Melbourne to Williamstown was opened in 1854. The first line in South Australia, from Adelaide to Port Adelaide, was opened in 1856; and the first Tasmanian line was completed in 1857. In New Zealand the first telegraph office was opened in 1862; and the line from Brisbane to Rockhampton, the first in Queensland, was opened in 1864. Telegraphic communication was established between Sydney, Melbourne, and Adelaide in 1858. The first telegraph in Western Australia was opened in 1869, and communication between that Colony and all the others of the group was completed in 1877.

Cables.

Australasia is connected with Europe and the rest of the world by means of cables connecting with the various Asiatic continental lines. There are two cables—the older one opened in October, 1872—joining Port Darwin to Banjowangie in Java, whence communication is provided with Europe by way of Batavia, Singapore, Madras, and Bombay. The cable from Port Darwin to Banjowangie is unfortunately liable to damage through volcanic eruptions, and the question is, therefore, being considered whether a point more to the east should not be substituted for Banjowangie. The length of line between Adelaide and London is 12,570 miles—9,146 cable, and 3,424 miles overland wire. Of the land portion 1,971 miles are between Adelaide and Port Darwin. A second cable was laid in 1888 from Broome, on Roebuck Bay, in Western Australia, to Banjowangie. The length of line by this route from Perth to London is 12,296 miles, 10,811 being cable and 1,485 land wire. The eastern colonies are connected with Broome by a line running from Adelaide, *via* Port Augusta, Eucla, and Albany, to Perth. The cable joining Tasmania to the continent of Australia was laid in 1869, the length being about 170 miles. It starts from the township of Flinders, near Cape Schanck, in Victoria, and terminates at Low Head, at the mouth of the Tamar, in Tasmania. New Zealand

was joined to the continent by a cable laid in 1876, the length being about 1,191 miles. It has its Australian terminus within sight of the spot where Captain Cook landed on the shores of Botany Bay, and within a stone's throw of the monument of La Perouse. The New Zealand terminus of the cable is at Nelson, on the middle or south island, whence another cable is laid to Wanganui, in the North island, with an alternate line from Picton to Wellington.

Amended tariff.

At a conference of the postal and telegraphic authorities, held in Sydney in February, 1891, the question of cable rates came under discussion, and a proposal of the Eastern Extension Telegraph Company was agreed to, by which the colonies, with the exception of New Zealand and Queensland, undertook to make good half the loss which the Company would sustain by a reduction in the schedule of cable charges. The amended tariff came into force in May, 1891, and the amount to be guaranteed to the Company for the portion of the year during which the contract was in existence was £158,941. The sum earned by the Company for the same period was £120,141, so that the deficiency on the eight months' business was £38,350, one-half of which was made good by the contributing colonies *pro rata* according to population.

Cable to New Caledonia.

An agreement has been entered into between the representative of a French company and the Queensland Government, for the construction of a cable service between Queensland and New Caledonia, a distance of 900 miles. The French Government is to guarantee £8,000 and the Governments of New South Wales and Queensland £2,000 each as a subsidy to the line; and in consideration of this sum the two Australian Governments mentioned are entitled to the use of the wire for transmission of Government messages free of cost, up to the extent of the guarantee. The Queensland terminus of the cable has been fixed at Burnett Heads, that locality having been selected as being more suitable than either Gladstone, Sandy Cape, or Cape Moreton, which had been mentioned as probable landing places for the cable.

This service, when completed, will be the first portion of the proposed main Pacific cable, connecting Australia with Vancouver, San Francisco, or such other place as may be determined.

Progress in Telegraphic matters.

All the Colonies show very rapid progress in regard to telegraphic matters during the period from 1871 to 1881. In the case of Queensland this increase is largely due to the construction of the line to the Gulf of Carpentaria; and in the case of South Australia, to the construction of the lines to Port Darwin and to Eucla, on the boundary of Western Australia.

Length of Telegraph poles.

The following table shows the increase in the number of telegraphic lines for each colony at intervals of ten years, as far as the returns are available :—

Colony.	1861.	1871.	1881.	1891.
New South Wales	1,616	*4,674	8,515	11,697
Victoria	.....	*2,295	3,350	7,170
Queensland	169	2,525	6,280	9,996
South Australia	597	1,183	4,946	5,640
Western Australia	.....	*750	1,585	2,921
Tasmania	.....	*291	928	2,082
New Zealand	.....	2,015	3,824	5,349
Australasia	.....	13,733	29,428	44,855

* In 1873.

Length of Telegraph wires.

The next table gives similar particulars, only the amounts are expressed as miles of wire instead of length in poles :—

Colony.	1861.	1871.	1881.	1891.
New South Wales	1,981	5,579	14,278	24,780
Victoria	.....	3,472	6,626	13,989
Queensland	169	2,614	8,585	17,646
South Australia	915	1,718	7,228	12,707
Western Australia	.....	*750	1,593	3,546
Tasmania	.....	241	1,157	3,178
New Zealand	.....	3,287	9,653	13,235
Australasia	.....	17,661	49,120	89,081

* In 1873.

Number of Telegrams.

The number of telegrams passing along the wires of each Colony, and the revenue received by the respective telegraph departments for the year 1891, were as follow. In the total for Australasia

a correction has been made for Intercolonial telegrams recorded in both the despatching and the receiving colony :—

Colony.	Number of Telegrams.	Revenue Received.
		£
New South Wales	4,046,251	181,952
Victoria	3,310,489	135,312
Queensland	1,189,355	90,940
South Australia	917,633	79,310
Western Australia	224,113	12,643
Tasmania	593,583	32,576
New Zealand	1,988,353	91,592
Australasia	12,269,777	624,325
Australasia (Intercolonial excess excluded.)	11,069,800	.....

Telephones.

In connection with the Telegraph Departments of the various colonies, Telephone Exchanges have, during recent years, been established in the capitals and other important centres of population. The returns relating to Telephones are, however, difficult to separate from those relating to Telegraphs, particularly with regard to the distinct wires in use. Information regarding Telephones in the different colonies, as far as can be ascertained, will be found in the following table :—

Colony.	Number of telephones.	Miles of wire (distinct from telegraph wires.)	Revenue.
			£
New South Wales	2,789	.....*	16,579
Victoria	2,439	8,731	38,384
Queensland	639	.....*	4,207
South Australia	758	2,275	12,348
Western Australia	150	591	1,084
Tasmania	689	496	3,528
New Zealand	3,083	2,603	18,571
Australasia	10,547	.....	94,701

* Not furnished.

In addition to the branches of the Postal and Telegraphic business dealt with in this chapter, Money Order Offices and Savings Banks are in operation in all the colonies, particulars regarding which will be found in the chapter dealing with Finance.

PARLIAMENTS.

FROM the nature and composition of the population of Australia at and for some time after its first settlement, the government and direction of affairs naturally rested in the hands of the Governor alone, and it was not until the year 1824, during the time of Sir Thomas Brisbane, that any attempt was made to provide the Governor with recognized advisers. In that year the first Legislative Council was appointed, consisting of six gentlemen, of whom five held the principal official positions in the Colony, the sixth being Mr. John Macarthur, the founder of the Australian wool industry. The first Act of Parliament ever passed in Australia was a measure dealing with the currency, in 1824. Four more members were added to the Council in the following year, by Governor Darling, and further additions were made from time to time. On 6 June, 1838, the public were first admitted to hear the debates, for up to that time even the reporters of the Press had been excluded. Henceforth, however, the proceedings were more or less fully reported. Until the year 1843 the members of the Legislative Council were all nominated by the Governor, but in that year the principle of election was introduced, in conjunction with that of nomination. The nominated members were twelve in number, six being official and six non-official. The elected members comprised a number of men whose names have become historic, such as W. C. Wentworth, William Bland, William Lawson, Charles Cowper, Terence Aubrey Murray, W. H. Suttor, Francis Lord, Richard Windeyer, Alexander Macleay, Roger Therry, Charles Nicholson, and John

First Legislative Council.

Introduction of the elective principle.

Dunmore Lang, the two last mentioned being among the representatives of the Port Phillip district, since known as Victoria. Mr. Alexander Macleay was the first Speaker of this body, succeeded by Sir Charles Nicholson in 1846. Mere representation in the Legislature did not altogether satisfy the colonists, for as far back as the year 1845 the question of Responsible Government was publicly discussed. The agitation once started was never allowed to slumber, but aided by a vigorous and outspoken Press, as well as by the talented oratory of some of the patriotic members of the Legislature, it continually acquired new strength, until, in the year 1855, the Imperial Parliament passed a measure to sanction the new Constitution that the colonists sought. On 22 May, 1856, the first Australian Parliament under Responsible Government was opened by Sir William Denison, in Sydney. It consisted of a nominated Upper House, called the Legislative Council, and a Legislative Assembly, consisting of fifty-four elected members, of whom Sir Daniel Cooper was chosen the first Speaker. The first Ministry consisted of Sir Stuart Alexander Donaldson as Colonial Secretary and Premier; Mr. Thomas Holt, Colonial Treasurer; Sir William Manning, Attorney-General; Mr. J. B. Darvall, Solicitor-General; Mr. G. R. Nichols, Auditor-General; and Mr. W. C. Mayne as Representative of the Government in the Legislative Council. From that period the principles upon which the Government of New South Wales is based have never altered, though there have been some changes in the details. Various amendments of the Electoral Act have taken place from time to time, by which the number of representatives to the Legislative Assembly has been largely increased, and alterations have taken place, all in the direction of the removal of restrictions, and the extension of the liberties of the people. The Legislative Council now numbers seventy-one members, though there is no limit fixed, and the Assembly 141. The tenure of a seat in the Council is for life. The only qualification required of members is that they shall be 21 years of age, and natural-born or naturalized subjects. The qualification

First Speaker.

First Parliament under Responsible Government.

for a member of the Assembly is the same as that for the Council in the main. Members of this body receive £300 a year, in addition to free railway passes, but members of the Council are unpaid. The duration of the Assembly is limited to three years. Manhood suffrage prevails, the only condition being six months' residence before the rolls are compiled. Since the inauguration of Responsible Government there have been fifteen appeals to the people, and the fifteenth Parliament is now in its second Session. The average duration of each Parliament has been two years two months and six days.

Victoria.

The example and influence of New South Wales has not been without effect on the other Australasian Colonies. Victoria, after its separation from New South Wales, was legislated for by a Council of partly nominated and partly elected members, but on 21 November, 1856, the first Parliament under the new Constitution of Victoria was opened. This Constitution differed from that of the parent Colony in that the Legislative Council, as well as the Assembly, was elective; it consisted of thirty members, while there were fifty-eight in the Lower House. Mr. W. C. Haines was the first Premier. There are now forty-eight members in the Council, and ninety-five in the Assembly. Members of the Council must be of the full age of 30 years, and for one year previous to the election must have possessed a freehold estate to the value of £100 per annum, free of encumbrance. The tenure of office is six years, and there is no remuneration attached to the office. Electors must possess a £10 freehold, or a leasehold of £25, or be mortgagors in possession of property rated not less than £10 per year. Graduates of British or Colonial Universities, legal and medical practitioners, ministers, certified school-masters, military and naval officers, and matriculated students of the Melbourne University are entitled to the franchise. Members of the Assembly must be 21 years of age, natural-born or naturalised subjects, and resident in the Colony for two years. The reimbursement is £300 per annum. Three years is the limit of the duration of a Parliament. The suffrage is practically manhood,

with a residence of twelve months. There have been fifteen Parliaments in Victoria under the present Constitution, the average duration of each being two years and four and three-quarter months.

Tasmania.

Tasmania, on its separation from New South Wales, at the end of 1825, was provided with a nominated Legislative Council, under which it was governed for some thirty years. Following the lead of their neighbours, the colonists of this island also agitated for a Constitution, which was eventually granted to them, and came into force on 2 December, 1856. Tasmania possesses a Legislative Council and a Legislative Assembly, both of which are elective. The Council consists of eighteen members, who hold office for six years. They must be 30 years of age, and natural-born or naturalised subjects; their remuneration is £100 per annum. The electors must possess a property qualification of £20 per annum freehold, or £80 leasehold, in addition to which there are professional and educational qualifications, coupled with a condition of residence. There are thirty-six members of the Assembly, whose qualification is the same as that for the Council, except that the minimum age is 21. The duration of the Assembly is limited to five years, and members receive £100 per annum. The tenth Parliament of Tasmania is now in existence. Parliaments have a maximum duration of five years. Their actual term of existence has averaged about three years and eight months.

South Australia.

South Australia, like most of the other Australian Colonies, was at first subject to the nominee system of appointment to the Legislative Council, but in 1848 it obtained the boon of adding elected members to those nominated. Constitutional Government was granted to this Colony in 1856, and the first Parliament under the new order of things assembled on 22 April in the following year. The South Australian Legislature consists of a Legislative Council of twenty-four members and a House of Assembly of fifty-four. Both Houses are elected by the people. Eight members of the Council retire every three years, but are eligible for re-election.

Members are not required to have a property qualification, but must have resided in the province for three years. Electors must have a freehold of £50, a leasehold of £20 annual value, or be an occupier of a dwelling of the clear annual value of £25, and must have been registered six months prior to the election. Members receive £200 a year. Members of the Assembly, as well as electors, are qualified by being 21 years of age, and enrolled for six months before the election. Members of the Lower House also receive £200 per annum. The duration of a Parliament is limited to three years.

Queensland. Queensland, which separated from New South Wales at the end of the year 1859, was never as a separate colony under the nominee system, but commenced with Responsible Government, under which its first Parliament opened on 29 May, 1860. Its Legislative Council consists of members, nominated by the Governor. There are thirty-eight at present, but there is no limit fixed to the number. The tenure is for life. The qualification for members is that they must be 21 years of age, and natural-born or naturalised subjects. They receive no remuneration. The Legislative Assembly, of which there are seventy-two members, is elected by the people. Electors for the Assembly are enrolled under what is practically manhood suffrage, the only condition being six months' residence. Any person on the Electoral Rolls is qualified to be a member. The duration of Parliament is limited to three years, and members of the Assembly receive £300 a year.

New Zealand. In New Zealand, as in the other Colonies, the form of government in the early days was of a mixed description, but in the year 1852 an Act was passed by the Imperial Parliament conferring upon this Colony a Constitution. New Zealand was divided into six provinces, subsequently increased to nine, each governed by a Superintendent and Provincial Council, elected according to a franchise which was practically equivalent to household suffrage. The provincial system, however, did not give satisfaction, and was abolished in 1876, when a system of Parliamentary Government

for the whole of the Colony, very similar to that of the large Australian Colonies, came into existence. The Legislature now consists of two branches. There is a Legislative Council of thirty-five nominees, all of whom have been appointed for life, but by an Act passed in 1891 all future appointments will be made for seven years only, though each Councillor will be eligible for re-appointment. The honorarium is £150 per Session. The qualification for membership is that the person must be 21 years of age, and a natural-born or naturalised subject (in New Zealand) of Her Majesty. The House of Representatives consists of seventy-four members, of whom four are Maoris, chosen to represent them by their countrymen. The qualification for membership is simply registration as an elector. The honorarium is £240 per Session. In both Houses the honorarium is subject to reduction in case of absence. There have been six Parliaments under the present Constitution, the average duration of each being nearly two years and eight months.

Western Australia.

Western Australia, which was proclaimed a British Colony on 1 June, 1829, was the last of the group to enjoy the privilege of Responsible Government. At an early stage of its existence the Colony possessed a Legislative Council, consisting exclusively of officials nominated by the Governor. Subsequently, elected members were added, representing the principal districts of the Colony, and this state of things continued until the end of 1890, when the new Constitution came into existence. Under it there are two houses of Legislature; the Upper House consists of fifteen nominated members, and the Lower House of thirty members, representing the thirty electorates into which the Colony is divided. For members of the Council no property qualification is required, but members of the Assembly must possess freehold estate to the value of £250, free of encumbrance, and electors for that body must have possessed freehold to the value of £100, leasehold to the value of £10 per annum, or must have occupied a house or lodgings rented at that amount, for six

months prior to registration. In six years from the first summoning of Parliament, or when the population of the Colony reaches 60,000, the Legislative Council is to become elective, with a property qualification for members the same as that of the Assembly, while electors must be £200 freeholders, or £30 lease or householders. There is no payment of members in Western Australia. The first Premier was the Hon. John Forrest, and the first Representative Parliament is now engaged in its legislative labours.

Remuneration of members.

The following table shows the number of members, and the amount of remuneration in each branch of the Legislature, in the various Australasian Colonies :—

	Legislative Council.		Legislative Assembly.	
	No. of members.	Remuneration.	No. of members.	Remuneration.
New South Wales ...	71	None	141	£300 per ann.
Victoria	48	None	95	£300 ,,
Queensland.....	38	None	72	£300 ,,
South Australia.....	24	£200 per ann.	54	£200 ,,
Western Australia ...	15	None	30	None.
Tasmania.....	18	£100 per ann.	36	£100 per ann.
New Zealand	35	£150 per sess.	74	£240 per sess.

Federation.

The question of federation having been so prominently brought before the public of Australasia during recent years, this chapter would be incomplete without a brief record of what has been done in the matter. The subject did not escape the attention of those who drew up the outlines of the first free Constitution for Australia, who indeed sketched out a fairly comprehensive federation scheme. Unfortunately, however, the proposition was mixed up with others that were unpopular, and it was allowed to sink out of sight with them. Still, from time to time the evil of want of union among the Australian Colonies was forcibly apparent, and the idea of federation has gradually become more and more popular. Discussions of the subject took place in the Colonial press, and

conferences were held, the result of which was that the question came before the Imperial Parliament, by whom a measure was passed, permitting the formation of a Federal Council, to which any Colony that felt inclined to join could send delegates. The first meeting of the Federal Council was held at Hobart, in January, 1886, the Colonies of Victoria, Queensland, Tasmania, Western Australia, and Fiji being represented. New South Wales, South Australia, and New Zealand declined to join, but South Australia sent delegates to a subsequent meeting. The Council has held five meetings in all, at which various matters of intercolonial interest were discussed. The Council, however, is purely a deliberative body, and possesses neither funds nor powers to put its legislation into force.

Federal Council.

Federal Conference.

A more important step towards the federation of the Australasian Colonies was taken in February, 1890, when a Conference, consisting of delegates from each of the seven Colonies, was held at the Parliament House, Melbourne. The members held seven meetings, the result being the adoption of an Address to the Queen, enclosing certain resolutions as the result of the Conference, affirming the desirableness of an early union, under the Crown, of the Australian Colonies, on principles just to the several Colonies; that the remoter Australasian Colonies should be entitled to admission upon terms to be afterwards agreed upon; and that steps should be taken for the appointment of delegates to a National Australasian Convention, to consider and report upon an adequate scheme for a Federal Constitution.

National Australasian Convention.

In accordance with the resolution just quoted, delegates were appointed by the different Australasian Parliaments, and on the 2nd March, 1891, the National Australasian Convention commenced its sittings in the Legislative Assembly Chambers, Macquarie-street, Sydney. There were forty-five members of the Convention altogether, every Colony sending seven, with the exception of New Zealand, which had only three representatives. Sir Henry Parkes was unanimously chosen as President, and Sir

Samuel Griffiths as Vice-President. Resolutions were adopted affirming the following principles:— Resolutions adopted.

1. That the powers and rights of existing Colonies shall remain intact, except as regards such powers as it might be necessary to hand over to the Federal Government.
2. That no alteration shall be made in States without the consent of the Legislatures of such States, as well as of the Federal Parliament.
3. Trade between the federated Colonies to be absolutely free.
4. Power to impose Customs and Excise Duties to be in the Federal Government and Parliament.
5. Military and Naval Defence Forces to be under one command.
6. The Federal Constitution to make provision to enable each State to make amendments in its constitution if necessary for the purposes of Federation.

Further resolutions approved of the framing of a Federal Constitution which should establish a Senate and a House of Representatives—the latter to possess the sole power of originating money bills; also a Federal Supreme Court of Appeal; and an Executive consisting of a Governor-General, with such persons as may be appointed as his advisers. Federal Constitution.

A draft Constitution Bill was adopted by the Convention, and it now remains for the several Colonies to adopt or reject the scheme presented to them by the Convention. Constitution Bill.

DEFENCE.

Military and Defence Forces of Australasia.

IN each of the Colonies a small permanent military force is maintained, consisting for the most part of artillery and submarine miners. There has always been manifested by the colonists of Australasia an objection to the maintenance of a standing army, and a disposition to rely mainly upon the patriotism and valour of the citizens for their own defence. But each Colony possesses a more or less complete system of fortifications, armed with expensive ordnance, which requires a more regular and constant attendance than could well be bestowed by those who only devote a portion of their time to military affairs. Hence it has been found advisable to institute the small permanent forces alluded to, whose chief duty it is to man the fortifications and keep the valuable armaments therein in a state of efficiency, so as to be ready for any emergency. At the same time it is expected that they would form a steady nucleus around which to form an effective defence force if ever hostilities should unfortunately occur. The greater portion of the Colonial forces is, however, comprised of volunteers under a system of partial-payment, which affords a cheap and effective defence force without the disadvantages and expense of a standing army. The men receive a fixed amount of pay, in order to compensate them for loss of wages during the time they are away from their employment for the purposes of military instruction. In New South Wales and Victoria the remuneration amounts to £12 per annum to each man, and in Queensland and South Australia to about half that sum. It is computed on the basis of a certain number of whole or half-day parades or night drills at the rate of 10s. per day in the first two Colonies named, 6s. a day in Queensland, and

5s. a day in South Australia. In addition to the remuneration the partially-paid, in common with all the other military forces, receive free rations when in camp or on active service. There has been a marked tendency in most of the Colonies to discourage the services of the purely volunteers, as the system was found to work unsatisfactorily, especially in the country districts. In New Zealand and Western Australia alone is the volunteer system the mainstay of defence. The following is the strength of the forces maintained by each province in 1891–2 :—

Purely volunteer system unsatisfactory.

	Total Forces.	Paid.	Partially Paid.	Unpaid.
New South Wales	5,157	633	4,419	105
Victoria	7,314	406	4,343	2,565
Queensland	3,840	134	2,851	855
South Australia	2,371	56	1,508	807
Western Australia	657	2	.....	655
Tasmania	1,856	40	605	1,211
New Zealand	5,561	134	.....	5,427
Total, Australasia	26,756	1,405	13,831	11,520

There are also in New South Wales, Queensland, South Australia, and Tasmania, rifle clubs or companies of a strength of about 8,500 men which have not been included above. By means of a liberal extension of these clubs it is expected that there will be a large number of men, trained to the use of the rifle and not unaccustomed to drill, who in time of need may be available to fill the ranks of the regular forces.

Rifle clubs.

The relative strength of the various arms in the Colonies may be summarized as follows :—

Total military strength.

Staff, Medical Staff, Instructors, Ambulance Corps, &c.	901
Artillery (Garrison, field and horse)	4,169
Engineers	717
Cavalry	909
Mounted Infantry and Mounted Rifles	3,200
Infantry	16,860

which, with the rifle companies, make a total strength of about 35,256 men.

Marine Forces.

In addition to the forces enumerated above, all the Colonies, with the exception of Western Australia, have small corps of Naval Volunteer Artillery, or a partially paid force of a similar character, trained to sub-marine mining and the use of torpedoes, or capable of being employed either as a light artillery land force, or to serve on board the local war vessels. In Victoria there is a permanent naval force of 236 men. The marine forces are as follow:—

Colony.	Strength.
New South Wales	631
Victoria	615
Queensland	479
South Australia	173
Tasmania	70
New Zealand	1,228
Total	3,196

Combined Australasian Defence Forces.

Thus the combined forces of all the Australasian Colonies on their present footing are 38,452 strong; and of these 25,000 could be mobilised in either of the Colonies of Queensland, New South Wales, Victoria, or South Australia.

NAVAL DEFENCE.

Australasian naval station.

The boundaries of the Australian Naval Station have been defined as follows :—From 95° E. long. by the parallel of 10° S. lat. to 130° E. long. ; thence north to 12° N. lat., and along that parallel to 160° W. long., and on the south by the Antarctic Circle, including the numerous groups of islands situated within those limits.

Imperial navy on the Australasian station.

The defence of the Australasian coast is mainly in the hands of the British ships on the Australian Station, and of the Australasian Auxiliary Squadron. Sydney, the head quarters of the fleet, ranks as a first class naval station ; and extensive repairing yards and store-houses have been provided for the accommodation of the ships of war. There were stationed in the Australasian waters at the close of 1892 nine Imperial vessels whose armament, speed, &c., are as follow :—

Imperial War Vessels on Station.

Name.	Class.	Material of hull.	Displacement.	Indicated horse-power.	Draught of water extreme.	Length.	Beam.	Armour.	Armament.		Speed.	Coal endurance.	
									Guns.	Torpedo tubes.		Coal that can be carried in bunkers.	Distance that can be steamed at 10 knots' speed.
			tons.		ft. in.	ft. in.	ft. in.				knots.	tons.	knots.
Orlando	Twin-screw cruiser, 1st class, armoured.	Steel	5,600	8,500	24 2	300 0	56 0	Armoured belt at water-line, 10 in. ; armoured deck, 3 in. ; conning tower, 12 in.	2 9·2-in. 22-ton B.L.R. 10 6-in. 5-ton B.L.R. 16 Q.F. Hotchkiss, 7 M., 3 L.	2	18·5	900	7,000
Curaçoa	Screw cruiser, 3rd class.	Steel and iron sheathed with wood.	2,380	2,540	18 10	225 0	44 6	.....	4 6-in. 5-ton B.L.R. 8 5-in. 2-ton B.L.R. 1 Q.F. Hotchkiss 9 M., 2 L.	2	13·0	470	3,800
Rapid	Screw cruiser, 3rd class.	Composite.	1,420	1,400	15 9	200 0	38 0	.....	2 6-in. 4-ton B.L.R., 10 5-in. 38-cwt. B.L.R., 4 M., 1 L.	....	13·1	425	6,600
Royalist.....	Screw cruiser, 3rd class.	do ..	1,420	1,510	15 9	200 0	38 0	.....	2 6-in. 4-ton B.L.R., 10 5-in. 38-cwt. B.L.R., 4 M., 1 L.	....	13·1	425	6,600
Lizard	Screw gun-boat, 1st class.	do ..	715	1,000	13 6	165 0	29 0	.....	6 4-in. 25-cwt. B.L.R., 4 M.	....	12·7	105	2,500
Goldfinch	Screw gun-boat, 1st class.	do ..	805	1,200	12 8	165 0	30 0	.....	6 4-in. 26-cwt. B.L.R., 2 Q.F. Hotchkiss, 2 M.	....	13·0	105	..
Ringdove	Screw gun-boat, 1st class.	do ..	805	1,200	12 8	165 0	30 0	.....	6 4 in. 26-cwt. B.L.R., 2 Q.F. Hotchkiss, 2 M.	....	13·0	105	..
Dart*	Screw yacht..	do ..	470	200	12 11	133 0	25 2	.....	2 L.	....	8·8	64	....

* Surveying service. M.L.R., Muzzle-loading rifled guns; Q.F., Quick-firing guns; M., Machine guns; L., Light guns under 15 cwt.; B.L.R., Breech-loading rifled guns.

Special Australasian squadron.

An undertaking has been entered into by all the Colonies for the payment of a *pro rata* subsidy for the maintenance of an auxiliary fleet. The total subvention to be paid by all the Colonies amounts to £126,000 per annum, the contributions of each being determined on the basis of population. The amounts estimated as payable by each Colony for the year 1892 were :—

	£
New South Wales	37,720
Victoria	36,968
Queensland	13,342
South Australia	10,663
Western Australia	1,858
Tasmania	4,850
New Zealand	20,599
Australasia	£126,000

Agreement with British Government.

The fleet consists of five fast cruisers, and two torpedo gunboats of the "Archer" (improved type) and "Rattlesnake" classes of the British Navy ; of these three cruisers and one gunboat will be continuously kept in commission, the remainder being held in reserve in Australasian ports, but ready for commission whenever circumstances may require their use. The agreement is for a period of ten years, and shall then, or at the end of any subsequent year, be terminable, provided two years' notice has been given. The vessels have been built by the British Government, but the Australasian Colonies pay the interest on their prime cost at the rate of 5 per cent., provided such payment does not exceed £35,000. The Colonies are also to pay the actual charge for maintenance as mentioned above. On the termination of the agreement these vessels will remain the property of the Imperial Government. The strength of the fleet already in Australian waters will be maintained. The vessels specified in the agreement between Great Britain and the Colonies are to be in addition to these. The Australasian squadron is commanded by the Admiral on the Australian Station, whose headquarters are in Sydney, where a residence is provided for him by the Colony. The squadron, which arrived in Port Jackson on 5th September, 1891, consists of the following vessels :—

Australian Auxiliary Squadron.

Name.	Class.	Material of hull.	Displacement.	Indicated horse-power.	Draught of water extreme.	Length.	Beam.	Armour.	Armament.		Special.	Coal endurance.	
									Guns.	Torpedo tubes.		Coal that can be carried in bunkers.	Distance that can be steamed at 10 knots' speed.
			tons.		ft. in.	ft. in.	ft. in.				knots.	tons.	knots.
Katoomba....	Screw cruiser, 3rd class.	Steel	2,575	7,500	16 6	265 0	41 0	Deck armour over machinery space, 2 in. and 1 in.; conning tower, 3 in.	8 4·7 Q.F. guns, 8 3-pr. Q.F. guns, 1 7-pr. M.L.R. gun (boat and field), 4·45 in. 5 barrel Nordenfeldt.	4	16·5	300	6,000
Ringarooma..	Screw cruiser, 3rd class.	do ..	2,575	7,500	16 6	265 0	41 0	do ..	do ..	4	16·5	300	6,000
† Mildura....	Screw cruiser, 3rd class.	do ..	2,575	7,500	16 6	265 0	41 0	do ..	do ..	4	16·5	300	6.000
† Wallaroo ..	Screw cruiser, 3rd class.	do ..	2,575	7,500	16 6	265 0	41 0	do ..	do ..	4	16·5	300	6,000
Tauranga	Screw cruiser, 3rd class.	do ..	2,575	7,500	16 6	265 0	41 0	do .	do ..	4	16·5	300	6,000
Boomerang ..	Torpedo gunboat.	do ..	735	4,500	10 6	230 0	27 0	Conning tower, 1 in.	2 4·7 in. Q.F. guns, 4 3-pr. Q.F. guns.	5	*18·75	160	2,500
† Karrakatta..	Torpedo gunboat.	do ..	735	4,500	10 6	230 0	27 0	do ..	do ..	5	*18·75	160	2,500

* This speed can be increased until, under favourable conditions, for a short period, a maximum of 21 knots can be obtained. Q.F.—Quick-firing guns.
† In reserve.

The "Wolverene."

New South Wales has no navy of its own, with the exception of the corvette "Wolverene," sixteen 64-pounder M.L. rifled guns, which is at present laid up, and two small torpedo steam-launches, the "Acheron" and the "Avernus."

Victorian navy.

Victoria has a navy of its own for harbour defence, consisting of the following vessels:—

Name.	Class.	Displacement.	Armament.
		Tons.	
Nelson	Wooden frigate..	2,730	2 7-in. M.L.R., 20 64-pdrs., 2 Gatlings.
Cerberus.....	Armoured turret ship (twin screw).	3,480	4 10-in. M.L.R., 4 1-in. Nordenfeldts, 4 barrels.
Victoria	Steel gunboat ... (twin screw).	530	1 10-in. R.B.L., 1 6-in. R.B.L., 2 13-pdr. R.B.L.' 2 1-in. Nordenfeldts, 4 barrels.
Albert.....	do ...	350	1 8-in. R.B.L., 1 6-in. R.B.L., 2 1-in. Nordenfeldts, 4 barrels.
Childers	First-class steel torpedo boat.	63	2 37-M.M. Hotchkiss guns, 4 13-in. Fiume, 4 14-in. Fiume torpedoes.
Nepean	Second-class steel torpedo boat.	12	5 14-in. R.L., also fitted for spar torpedoes.
Lonsdale.....	do	12	do do
Gordon	Wooden torpedo boat "Turn-about."	12	1 1-in. Nordenfeldt, 2 barrels, 5 14-in. Fiume.
Batman	Armed steamer.. (twin screw).	387	1 6-in. R.B.L., 2 1-in. Nordenfeldts, 2 barrels.
Fawkner	do ...	387	1 6-in. R.B.L., 2 Gatlings.
Gannet	do ...	347	1 6-in. R.B.L., 2 1-in. Nordenfeldts, 2 barrels.
Lady Loch	Customs steamer (steel).	346	do do
Commissioner..	Wooden steam launch.	40	4 14-in. Fiume, also fitted for spar torpedoes.
Customs No. 1	do ...	30	do do

Dredge gun-boats.

The two dredges ("Batman" and "Fawkner") and the tug ("Gannet") mentioned above have been specially built to carry heavy guns, and provision is also made by which some of the fast steamers belonging to the port could be fitted as cruisers at very

short notice. Guns are kept in readiness in Melbourne in case it should be deemed necessary to put these vessels into commission. A new torpedo boat, of the most improved type, to be called the "Countess of Hopetoun," is being built for the Victorian Government.

Queensland naval defence.

Queensland has two gunboats, one of which, the "Palumah," is employed on survey service at the joint expense of the Queensland and Imperial Governments. The following are the particulars of the vessels available for the defence of Queensland ports :—

Name.	Class.	Displacement.	Armament.
		Tons.	
Gayundah	Steel gunboat (twin screw).	360	1 8-in. B.L. Armstrong, 1 6-in. B.L. Armstrong, 4 M.
Palumah.....	do	360	1 8-in. B.L. Armstrong, 1 6-in. B.L. Armstrong, 2 M.
Otter	Tender (twin screw).	120	1 64-pounder, M.L.R.
Bonito	Barge (twin screw).	450	1 gun.
Stingaree	do	450	1 gun.
Pumba	do	450	1 gun.
Dolphin	do	450	1 gun.
Bream	do	450	1 gun.
Midge	Steam pinnace	.....	2 machine guns.
Mosquito	Second-class steel torpedo boat.	.....	1 machine gun.

South Australia maintains one twin-screw steel cruiser, the "Protector," of 920 tons. Her armament consists of 1 8-in. 11½-ton B.L., 5 6-in. 4-ton B.L., and 5 machine guns. Tasmania owns one torpedo boat, and Western Australia one schooner, the "Meda," of 150 tons, employed on survey service at the joint expense of the Imperial and Colonial Governments. New Zealand possesses four Thorneycroft torpedo boats, and four steam launches fitted for torpedo work.

FORTIFICATIONS.

Expenditure of the Australasian colonies for defence purposes.

Most of the Colonies have spent considerable sums in works of defence, and the principal ports are well protected by extensive fortifications, erected by the various Governments at great cost. The total expenditure from Consolidated Revenue for defence purposes during 1891-92 was as follows :—

Colony.	Amount.	Per head of Population.
	£	s. d.
New South Wales	279,239	4 11
Victoria	294,967	5 1
Queensland	75,685	3 8
South Australia	51,160	3 2
Western Australia	2,618	1 0
Tasmania	18,936	2 7
New Zealand	77,369	2 5

Or a total expenditure for Australasia of £799,974, at the rate of 4s. 2d. for each inhabitant.

Expenditure from loans for defence purposes.

In all the Colonies with the exception of Western Australia a certain amount of money has been spent out of loans on works of defence. Victoria, however, for several years has discontinued the expenditure of loan moneys for this service. The amounts thus spent during 1891–92 were as follows:—

	£
New South Wales	154,097*
Queensland	22,611
South Australia	309
Tasmania	2,402
New Zealand	7,347
Total	£186,766

*Inclusive of £42,201 for naval station, Port Jackson.

The total debt incurred by each Colony for defence purposes to the end of 1891-92 was as follows :— Debt for defence purposes.

	Amount.	Per head of Population.
	£	s. d.
New South Wales	*1,018,679	17 10
Victoria	100,000	1 9
Queensland	191,423	9 4
South Australia	234,414	14 5
Tasmania	118,993	16 0
New Zealand	871,474	27 8
Australasia	2,534,983	13 1

* Inclusive of £202,198 for naval station, Port Jackson.

This does not represent the whole cost of the fortifications, as large sums have from time to time been expended from the genera revenues of the colonies in the construction of works of defence the amount of such payments, however, it is now impossible to determine.

A military commission was appointed in 1890 by the Imperial and the different Colonial Governments, to take evidence and report on the fortification of King George's Sound, Hobart, Thursday Island, and Port Darwin, at the joint expense of the various Governments. The commission visited the points mentioned during 1891, and as a result of the evidence taken it may be anticipated that before long these four important strategical points will no longer be left at the mercy of any hostile cruiser that might choose to make a descent upon them. At King George's Sound and Thursday Island the construction of the works determined on is now approaching completion, and both places are ready to receive their armaments and garrisons. The guns for the fort at King George's Sound are in fact on their way from England, and the garrison has already been despatched from South Australia. Military Defence Commission.

EDUCATION.

Progress of Education.

IT would have been indeed strange if communities so prosperous as the Australasian Colonies had neglected the important matter of Education, and in every province of the group it will be found that the State has taken the subject in hand—to an extent, in some instances, far beyond what has been done in most of the countries of the old world. In each colony provision is made for primary education, and in all of them there are grammar and high schools, by means of which those who have the desire may qualify themselves for the higher studies of the University. So bountiful has been provision made by the State that in most cases the cost of education is merely nominal, and the poverty of the parents ceases to be an excuse for the ignorance of the children. No doubt in the very early days of colonization there was but little attention paid to education; but as soon as the sharp struggle for bare existence was over, attempts were made to provide in some degree the means of instruction for the rising generation, and the foundations were laid of an educational system that is in the highest degree creditable to these young communities. The denominations were naturally the first to build schools and provide teachers, but there was always a large proportion of persons who objected to denominationalism, especially those who belonged to denominations not subsidized by the State; and hence there arose a National or non-sectarian system, which has in the course of time almost monopolized the educational field.

Denominational Schools.

PRIMARY EDUCATION.

Primary Education.

In all the Australasian Colonies the State system of education is secular, and Western Australia is the only one where denominational education is at all subsidised. The Education Acts of each colony contain compulsory clauses, but the enforcement of

these is not everywhere equally strict. In Victoria, for instance, compulsory attendance at school has been insisted upon with great rigour, while in Queensland the principle of compulsion has been allowed to remain almost in abeyance, and in the other colonies it has been enforced with varying degrees of strictness. In Victoria, Queensland, and New Zealand, education was entirely free during 1891, and South Australia instituted the same principle at the beginning of 1892. In New South Wales, Western Australia, and Tasmania, small fees are charged, but are not enforced where the parents can reasonably plead poverty.

The statutory school age of each colony is as follows :—

New South Wales	6 to 14 years.
Victoria	6 to 13 ,,
Queensland	6 to 12 ,,
South Australia	7 to 13 ,,
Western Australia	6 to 14 ,,
Tasmania	7 to 14 ,,
New Zealand	7 to 13 ,,

New South Wales.

In New South Wales there was for many years a dual system in existence. The four State-aided denominations—the Church of England, Roman Catholic, Presbyterian, and Wesleyan bodies—had schools supported by annual votes from Parliament, administered under the control of the head of each denomination for the time being. There were also National schools, equally supported by the State, but under the control of a Board appointed by the Government. This plan was found to be costly and wasteful in the extreme, for in many of the country towns there were several small and inefficient competing schools, where the total number of children was not more than sufficient for one well-conducted establishment. So strongly was this evil felt that changes in the law relating to education were made from time to time, until at length the denominational system was abolished altogether, and one general and comprehensive plan of Public Instruction adopted in its place. This was not brought about without much agitation, lasting over a considerable period. A League was formed, having for its object the establishment of education, secular, compulsory, and free, and in

State aid to Donominational Schools.

1880, under the auspices of Sir Henry Parkes, the measure establishing the present system became law. In New South Wales education is non-sectarian, though facilities are afforded to clergymen to give religious instruction within specified school hours to those children whose parents desire it. It is compulsory, and free to all who cannot afford to pay, while a merely nominal fee is charged to those who are in a position to contribute towards the cost of the teaching of their children. In New South Wales in 1891 there were 2,457 public schools, with an average attendance of 122,528 children, out of a mean quarterly enrolment of 178,278, a net enrolment of 205,673, or a gross enrolment of 233,719. For secondary education there are a number of superior and high schools entirely supported by the State, besides numerous colleges, grammar schools and denominational schools, which obtain no assistance from the Government, except in the case of the Sydney Grammar School, which receives an annual subsidy, amounting in 1891 to £2,842. Scholarships and bursaries have been founded in connnection with many of these schools. Educational affairs are in New South Wales under the direction of the Minister for Public Instruction.

Present system of Public Instruction.

Schools in New South Wales.

Victoria.

In Victoria, under an Act passed in 1872, a system of free, compulsory, and secular primary education is in force, under a Minister for Education, who is responsible to Parliament. The compulsory clause is very strictly enforced, especially in the large towns, and education is entirely free as regards the ordinary subjects of primary instruction, while the teachers are allowed to impart additional subjects, for which a small fee has to be paid. At the end of 1891, Victoria had 2,233 State schools, with an average attendance of 141,126 scholars, out of a net enrolment of 218,082, or a gross enrolment of 253,469. Religion is strictly forbidden to be taught during school hours, and not at any time must a State teacher impart it. Secondary education is principally in the hands of private or denominational establishments. The higher education is supplied by the University with its affiliated colleges.

Queensland.

The Education Department in Queensland is administered by the Secretary for Public Instruction. The Act now in force was passed in 1875, and is of a tolerably liberal character, primary education being secular and free. The compulsory clause has not been put into operation, as it would be a very difficult thing to enforce its provisions in the scattered and sparsely-populated districts of the interior. The last departmental report, however, hints that the compulsory provision will soon have to be applied. The primary schools at the end of 1891 were 628 in number, with a gross enrolment of 77,137 pupils, a net enrolment of 67,931, a mean quarterly enrolment of 60,962, and an average daily attendance of 45,004. Secondary education is provided for by means of grammar schools, which are liberally assisted by the State. Queensland, as yet, has no University of her own, but sends a fair proportion of students to the Universities of Sydney and Melbourne.

South Australia.

The South Australian system of primary education, which was introduced in its present form in 1878, is very similar to those already described; it is presided over by a responsible Minister, with an Inspector-General and other officials. Education is compulsory, secular, and free. To the end of 1891 a small weekly fee had to be paid by all parents able to do so, but at the beginning of 1892 education in South Australia became entirely free. At the end of 1891 there were 552 primary schools, with a gross enrolment of 51,781 children, a net enrolment of 47,094, and an average attendance of 29,801. Children who have attained a certain standard of instruction are exempt from compulsory attendance. Religious instruction is not allowed to be given except out of ordinary school-hours. Secondary education is in the hands of private and denominational establishments, and the University at Adelaide, though small, is efficient.

Western Australia.

Quite a different system of education prevails in Western Australia. Under the Elementary Education Act of 1871, primary education is imparted in Government schools, which are entirely supported by the State. Private schools are also assisted from

the public purse, on condition of submitting to Government inspection on secular subjects. There is a high school at Perth, and a grammar school at Freemantle, and further encouragement is given to secondary instruction by the institution of scholarships which are open for competition. At the end of 1891 there were 75 Government and 13 assisted schools in the colony, with an enrolment of 3,566 and 1,779, and an average attendance of 2,630 and 1,280 respectively. The local boards have power to enforce compulsory attendance.

Tasmania.

In Tasmania there is no separate Minister for Education, but the department is under the control of the Treasurer, who has especial charge over matters relating to primary instruction. There are public schools in every country town throughout the colony, and several in Hobart and Launceston. At the end of 1891 they numbered 244 in all, the average attendance being 9,684, out of a gross enrolment of 19,207 children and an average monthly number on the rolls of 13,491. The principle of compulsion is nominally in force. Secondary education is encouraged by means of superior schools and a system of scholarships; and annual examinations are held at which successful candidates may gain the degree of Associate of Arts. There is no University in Tasmania.

New Zealand.

New Zealand has an educational system which is entirely secular and free. There is no separate department of education, but matters of this kind are looked after by one of the members of the Cabinet. The whole colony has been divided into school districts, each presided over by a local board, and a capitation grant of £3 15s. per head is paid by the State for every child in average attendance, and in addition 1s. 6d. per child for the support of scholarships, with other grants for school buildings, training of teachers, &c. At the close of 1891 there were 1,216 public schools thus supported by the State, omitting those with less than 10 pupils, with an average attendance of 97,058 scholars out of a total enrolment of 119,523. High schools, colleges, and grammar schools provide the means for acquiring secondary education, and there is an University, which

like those of New South Wales, Victoria, and South Australia, is empowered to confer the same degrees as the Universities of Oxford and Cambridge, except as regards Divinity.

Maori Schools.

In addition to the ordinary primary schools the New Zealand Government maintained schools for native children in localities where there are few or no Europeans. The number of schools in 1891 was 67, of scholars was 2,425, the average attendance 2,031, and the teaching staff numbered 100. The net expenditure for 1891 was £15,160.

Number of State Schools.

The following table gives the number of State schools in each of the colonies during 1891, together with the number of teachers and the average attendance of scholars. In addition to the number of teachers stated there were 506 sewing mistresses in Victoria and 154 in New Zealand :—

Colony.	Number			Scholars in average attendance.		Percentage of scholars in average attendance to mean population.
	of State Schools.	of Teachers.	of Scholars in average attendance.	To each School.	To each Teacher.	
New South Wales	2,457	4,427	122,528	50	28	10·7
Victoria	2,233	4,356	141,126	63	32	12·3
Queensland	628	1,504	45,004	72	30	11·2
South Australia	552	1,106	29,801	54	27	9·2
Western Australia	87	133	2,630	30	20	5·3
Tasmania	244	474	9,684	40	20	6·5
New Zealand	1,216	3,065	97,058	80	32	15·4
Australasia	7,417	15,065	447,831	60	30	11·6

Attendance at State Schools.

The percentage to the total population of the enrolment at State schools, after deducting multiple enrolments, is shown in the following table :—

	Per cent.
New South Wales	18·0
Victoria	19·0
Queensland	16·9
South Australia	14·5
Western Australia	7·2
Tasmania	12·9
New Zealand	19·0
Australasia	17·7

Victoria and New Zealand occupy the first position, being closely followed by New South Wales, these three colonies being above the average for Australasia, while Western Australia stands lowest on the list, owing, no doubt, to the sparseness of its population. The comparison, however, does not mean much, as the populations of the colonies are very variously constituted as regards ages. For instance, in New Zealand children of school age constitute nearly 27 per cent. of the population, as against 21 per cent. in Victoria, and 24 per cent. in New South Wales.

Children of School age.

The number of children of "school age" in all the colonies at the census of 1891 was 890,932. As almost the whole of the children enrolled at the different schools are over 5 or under 15 years of age, that period has been adopted as "school age" for purposes of computation in the following table :—

New South Wales	266,195
Victoria	244,436
Queensland	86,239
South Australia	80,897
Western Australia	10,191
Tasmania	35,810
New Zealand	167,164
Australasia	890,932

Enrolment of Scholars.

Against the above total the gross enrolment of scholars, after deducting multiple enrolments, at both State and private schools at the same period was :—

New South Wales	252,415
Victoria	265,826
Queensland	78,443
South Australia	60,184
Western Australia	5,345
Tasmania	23,825
New Zealand	133,665
Australasia	819,703

A comparison of the two tables above shows that while in Victoria the number of scholars enrolled actually exceeds the number of children from 5 to 15 years of age by 21,390, and while in Queensland there is a deficiency of only 7,796, there is room for improvement in the other colonies. In New South

Wales the number of children not enrolled at any school is 13,780, in South Australia 20,713, in Western Australia 4,846, in Tasmania 11,985, and in New Zealand 33,499. For the whole of Australasia there is thus a number of 71,229 children between 5 and 15, amounting to 8·0 per cent. of the total population of that age, which are either taught at home or receive no education at all.

Private and Denominational Schools.

Out of the total enrolment of 819,703 children, as just given, 681,076 were enrolled in schools under the control of the Governments of the various colonies, and 138,627 were on the rolls of private and denominational schools.

Average daily Attendance.

The average daily attendance at the State schools of all the colonies was 447,831, or 65·75 per cent. of the gross enrolment Calculated on the same percentage, the average attendance at the various private schools would amount to 91,147, and that of all schools to 538,978. Compared with the total population of each Colony, the proportion of children enrolled was as follows :—

Colony.	Enrolment per cent. of population.
New South Wales	22·1
Victoria	23·2
Queensland	19·5
South Australia	18·5
Western Australia	10·7
Tasmania	16·0
New Zealand	21·2
Australasia	21·3

This shows a school enrolment in Australasia of nearly two to every nine inhabitants—a proportion as favourable as that of any European country.

Increase of school attendance.

The number of children attending school has increased at a far greater rate than the population, as will be seen by the following

table, showing that the advantages of education have been of late years more within the reach of the masses than formerly :—

1861	130,060
1871	312,130
1881	670,776
1891	819,703

Population from 1861 to 1891 nearly trebled itself, but the number of school children in 1891 was nearly six and a half times as great as in 1861.

Cost per child in the colonies.

In the State Schools of New South Wales the cost per child was until 1888 higher than in the other Australian Colonies ; the figures for the last few years, however, show that that Colony has now reduced its expenditure per child below that of Victoria Queensland, and Western Australia. The following figures, which show the net expenditure to the State, do not include cost of buildings :—

	Total cost per child of the average attendance. £ s. d.
New South Wales	4 2 0
Victoria	5 4 11
Queensland	4 4 11
South Australia	3 2 9
Western Australia	4 8 10
Tasmania	3 15 0
New Zealand	3 17 3

The cost per child in average attendance at State Schools in Australasia therefore averaged £4 7s. 1d. for the year 1891.

The following table shows the State expenditure on primary education for 1891, school fees received, and cost of buildings. In Victoria, Queensland, and New Zealand, it will be remembered, primary education was free ; and it has since become so in South Australia. In the Colony last mentioned, out of the fees received in 1891, the sum of £16,143 was collected by teachers, and

retained as part of their salaries. This was also the case with regard to the total amounts of fees received in Western Australia and Tasmania; such sums are, therefore, not taken into account in calculating the net expenditure :—

Colony.	Administration and Maintenance of Schools.	Fees Received.	Net Expenditure, exclusive of Buildings, &c.	Expenditure on Buildings, &c.
	£	£	£	£
New South Wales...	578,191	75,913	502,278	191,374
Victoria (30 June, 1892)..	740,554	.....	740,554	65,170
Queensland.....	191,062	.....	191,062	27,055
South Australia.....	106,108	28,774	93,477	15,042
Western Australia...	11,686	1,460	11,686	.....
Tasmania.....	36,287	10,563	36,287	6,039
New Zealand	374,709	.....	374,709	32,873
Australasia.....	2,038,597	116,710	1,950,053	337,553

Private schools and scholars.

The number of private schools and of scholars enrolled in them in 1891 were as follows. No particulars are to hand respecting the number of teachers in private schools in Tasmania. That Colony is, therefore, excluded from the total number given :—

Colony.	Number of Schools.	Number of Teachers.	Enrolment of Scholars.	
			Number.	Percentage to Population.
New South Wales.....	714	2,651	46,742	4·1
Victoria	779	1,995	47,744	4·2
Queensland.....	146	534	10,512	2·6
South Australia..... ...	285	738	13,090	4·0
Western Australia	19	58	1,779	3·5
Tasmania..... ...	98	.....	4,618	3·1
New Zealand	280	727	14,142	2·2
Australasia.....	2,321	6,703	138,627	3·6

TECHNICAL EDUCATION.

Technical instruction.

Technical instruction is given in nearly all the capital cities of each of the Australian Colonies, and there is every probability that instruction in such matters will before long be very much extended. So far the expenditure on this important branch of education can only be got for the colonies enumerated below, which was in 1891, as follows. In addition to the amount stated for New South Wales the sum of £3,721 was collected from the students, and retained by the lecturers :—

	£
New South Wales	34,228
Victoria	29,316
Queensland	2,218
Tasmania	3,092

Technical college.

In New South Wales, during the year 1878, a sum of £2,000 was granted by Parliament towards the organization of a Technical College, and for five years the work of the institution was carried on in connection with the School of Arts. In 1883, however, a board was appointed by the Government to take over its management, and the Technical College became thenceforth a State institution. Towards the end of 1889 the Board was dissolved, and the Technical College came under the direct control of the Minister of Public Instruction.

Attendance.

The college is open to both male and female students, and of the latter the attendance in some terms has been as high as 400. In 1891 there were 2,912 individual students ; the average enrolment per term was 1,899.

Country classes.

Branch technical schools have been established in the suburbs, and in the northern, southern, and western districts of the Colony. In 1891 these country classes had an average of 2,634 students enrolled. Technical classes are also held in connection with a number of public schools. The average enrolment in these classes during 1891 was 879.

New building for technical college.

The Government have erected a new building for the technical college and technological museum at Ultimo, in the western portion of the metropolis.

Cost of technical education.

In 1891 the expenditure of the Government on Technical Education, including the Technological Museum, amounted to £34,228, and, in addition to this, the sum of £3,721 was contributed by the students as fees. The Parliamentary vote for the year was £36,300.

Technical education in Victoria.

Technical education in Victoria is extending rapidly, but while the Government of New South Wales has wholly borne the cost of this class of education, that of Victoria has received great assistance from private munificence, the Hon. F. Ormond, M.L.C., having given £15,500 to assist in the establishment of a Working Men's College. There are now over 2,000 students on the rolls of this institution. There are besides this college, the Schools of Mines and Design, wholly supported by the Government, and other technical schools in the various important centres of the Colony.

South Australia and Queensland.

Technical Education has well advanced in South Australia. The School of Painting and Design had, in Adelaide, during 1891, 253 students on the roll, and branch schools have been established at Port Adelaide and Gawler. Also in Queensland Technical Education is active; the classes are worked in conjunction with the Metropolitan School of Arts, the number of students on the rolls being nearly 600.

Technical schools in Tasmania.

In Tasmania the foundations of new Technical Schools were laid in 1889 in Hobart, but there are branch schools in Launceston, Latrobe, and Devonport. The schools are under the direction of local Boards of Advice, the members of whom act directly under the Minister in charge of Education. The number of students in 1891 was 351, and the Government subsidy £3,092.

Western Australia and New Zealand have not extended their educational operations so as to embrace Technical Education.

GENERAL EDUCATION.

Educational status.

Striking evidence of the rapid progress made by these colonies in regard to education is afforded by a comparison of the educational status of the people as disclosed by the four census enumerations of 1861, 1871, 1881, and 1891. In those years the numbers who could read and write, read only, and who were unable to read, were as follow :—

Degree of Education.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.	Australasia.
1861.								
Read and write	188,543	327,800	17,181	72,207	8,446	48,281	67,998	730,456
Read only	46,024	56,945	3,714	18,629	1,559	13,137	8,922	148,930
Cannot read	116,293	155,577	9,164	35,994	5,585	28,559	22,101	373,273
1871.								
Read and write	296,741	478,572	74,940	115,246	18,703	55,939	177,419	1,217,560
Read only	56,391	70,999	12,080	21,123	2,614	13,945	19,240	196,392
Cannot read	150,849	181,957	33,084	49,257	4,036	29,444	59,734	508,361
1881.								
Read and write	507,067	651,567	136,718	200,057	19,697	74,967	346,228	1,936,301
Read only	49,372	49,535	13,631	15,267	2,429	9,605	27,323	167,162
Cannot read	195,029	161,244	63,176	64,541	7,582	31,133	116,382	639,087
1891.								
Read and write	835,570	908,767	276,381	236,514	34,254	103,138	484,198	2,878,822
Read only	43,536	32,817	14,618	9,571	2,061	6,287	24,902	133,792
Cannot read	244,848	198,821	102,719	74,346	13,467	37,242	117,558	789,001

School age and over.

The figures in the preceding table refer to the total population, and the number of illiterates is, therefore, unduly swelled by those under school-going age. If the population over 5 years of age be considered in comparison with the total population, the following table shows the results for the whole of Australasia :—

Degree of Education.	Whole Population.				Population over 5 years of age.			
	1861.	1871.	1881.	1891.	1861.	1871.	1881.	1891.
Read and write	730,456	1,217,560	1,936,301	2,878,822	730,339	1,130,145	1,936,111	2,879,081
Read only	148,930	196,392	167,162	133,792	143,908	190,545	161,295	128,445
Cannot read	373,273	508,361	639,087	789,001	168,929	285,286	243,583	262,515
Total	1,252,659	1,922,313	2,742,550	3,801,615	1,043,176	1,605,976	2,340,989	3,270,041

The following table affords a comparison of the number of each class in every 10,000 of the population for the same periods :—

Degree of Education.	Whole Population.				Population over 5 years of age.			
	1861.	1871.	1881.	1891.	1861.	1871.	1881.	1891.
Read and write	5,831	6,334	7,060	7,573	7,001	7,038	8,270	8,804
Read only	1,189	1,022	610	352	1,380	1,186	689	393
Cannot read	2,980	2,644	2,330	2,075	1,619	1,776	1,041	803
Total	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000

It will be seen, therefore, that while in 1861 of every 10,000 people over 5 years of age there were only 7,001 who could read and write, the number in 1891 had increased to 8,804, while those who were totally illiterate had, in the same period, decreased from 1,619 to 803.

Improvement in rising generation.

Looking at the matter still more closely with reference to age, it will be seen that the improvement in education is most marked in the case of the rising generation. The following table shows the degree of education of all children between the ages of 5 and 15 years in 1861, 1871, 1881, and 1891, numerically and per 10,000:—

Degree of Education.	Total Numbers.				Per 10,000.			
	1861.	1871.	1881.	1891.	1861.	1871.	1881.	1891.
Read and write	114,353	288,154	482,719	674,012	4,637	5,911	7,058	7,565
Read only	68,038	102,316	86,574	69,640	2,759	2,099	1,266	782
Cannot read	64,237	96,986	114,654	147,280	2,604	1,990	1,676	1,653
Total	246,628	487,456	683,947	890,932	10·000	10·000	10·000	10·000

The proportion of those able to read and write has therefore grown from 4,637 to 7,565 in every 10,000 during the 30 years which the table covers, while the number of those able to read only was not much over one-fourth of what it had been in 1861, and the wholly illiterate had decreased by more than one-third.

Education as shown by marriage registers.

The Marriage Register affords further proof of the advance of education, and it has the further advantage of giving annual

Marriage Register signed with marks.

data, while the Census figures are only available for decennial periods. The numbers of those who signed the Marriage Register by marks were as shown herewith. The blanks indicate the cases where the information was not available :—

	1861.			1871.			1881.			1891.		
	Marriages.	Marks.		Marriages.	Marks.		Marriages.	Marks.		Marriages.	Marks.	
		M.	F.		M.	F.		M.	F.		M.	F.
New South Wales	3,222	596	989	3,953	573	768	6,284	347	525	8,457	267	240
Victoria	4,434	...	...	4,693	342	650	5,896	171	245	8,780	110	133
Queensland	320	...	...	970	...	...	1,703	84	169	2,905	88	109
South Australia ...	1,158	...	...	1,250	...	...	2,308	100	159	2,315	40	49
Western Australia	149	...	...	159	...	...	197	...	...	413	...	...
Tasmania	717	...	...	598	...	...	856	...	...	988	...	...
New Zealand	878	...	...	1,864	...	...	3,279	105	190	3,805	53	64
	10,878	...	...	13,487	...	...	20,523	807	1288	27,663	558	595

Percentages of mark signatures.

The percentages for those Colonies where the necessary information is available is worked out in the following table :—

Year.	Males.	Females.	Total.
1861	18·50	30·69	24·60
1871	10·58	16·40	13·49
1881	4·14	6·61	5·38
1891	2·12	2·27	2·20

The percentage in 1891 was therefore less than one-tenth of that in 1861, and there is every reason to expect that in the course of another few years the proportion will be still further diminished.

LETTERS AND NEWSPAPERS.

Spread of education shown by Postal Returns.

The Post Office returns of the various Colonies point indirectly to the spread of education, through showing the wonderful increase in the distribution of letters and newspapers that has taken place. The following table shows that while in 1851 only 2,165,000 letters and 2,150,000 newspapers passed through the Australasian Post Offices, these numbers had in 1891 increased to 183,694,900 and 95,879,760 respectively. Allowance has been

made for intercolonial postage counted by both the receiving and the despatching colonies :—

	Letters.	Newspapers.
1851	2,165,000	2,150,000
1861	14,801,000	11,640,000
1871	32,122,000	18,354,000
1881	85,483,000	47,611,000
1891	183,694,900	95,879,760

The following are the numbers of letters and newspapers per head of population in each of the years above mentioned :— Letters per inhabitant.

	Letters per Inhabitant.	Newspapers per Inhabitant.
1851	4·7	4·7
1861	11·8	9·3
1871	16·6	9·5
1881	30·9	17·2
1891	47·8	24·9

In 1891 the number of letters per inhabitant was, therefore, fully ten times, and that of newspapers nearly five and a half times, larger than in 1851.

PUBLIC LIBRARIES.

In all the Colonies Public Libraries have been established, those in the capital cities generally going by the name of "The Public Library," while those in the country towns are known as Schools of Art, Mechanics' Institutes, &c. The Free Public Libraries in Melbourne and Sydney are splendid institutions, the former comparing favourably with many of the libraries in European capitals. The following table shows the number of libraries which furnished returns, and the number of books belonging to them in the latest years for which returns have been furnished :— Public Libraries.

	No. of Libraries.	No. of Books.
New South Wales	199	326,517
Victoria	380	722,282
Queensland	87	113,680
South Australia	139	154,337
Tasmania	39	69,339
New Zealand	298	330,770
Total of six Colonies	1,142	1,716,925

In Western Australia, Mechanics' Institutes are to be found in most places of any importance, but no numerical returns are available.

UNIVERSITIES AND COLLEGES.

Universities and Colleges.

The advance of education is hardly more clearly indicated by the institution and success of Colleges and Universities, than is the progress of wealth or the attainment of leisure. In Australia the earliest attempts to provide for what may be termed the luxuries of education, were made in New South Wales in 1852, and in Victoria in 1855, when the Universities of Sydney and Melbourne respectively were established. No other Colony of Australasia was at that time sufficiently advanced in wealth and population to follow the example thus set, but New Zealand in 1870, and South Australia in 1874, each founded an University. In all cases the Universities are in part supported by grants from the public funds, and in part by private endowments and the fees paid by students.

University revenues.

The Government Endowment, Lecture Fees, and Income from other sources, received by the Sydney and Adelaide Universities in 1891, and by the Melbourne University in 1890, were as follow :—

	Government Endowment.	Lecture Fees.	Other Sources.	Total.
Sydney	£18,300	£7,262	£11,694	£37,256
Melbourne	16,500	14,959	816	32,275
Adelaide.....	3,207	3,205	5,220	11,632

In addition to the above annual endowment the Adelaide University has received a perpetual endowment of 50,000 acres of land from Government.

Number of students.

The number of students attending lectures in 1891 (Melbourne in 1890) is shown in the figures herewith :—

University.	Students attending Lectures.		
	Matriculated.	Not Matriculated.	Total.
Sydney	478	352	830
Melbourne	563	7	570
Adelaide	110	136	246
New Zealand (Affiliated Colleges)	379	326	705
Total	1,530	821	2,351

Attached to the University there are in Sydney three Colleges, while a fourth, for female students, has been established in temporary premises, pending the construction of a building in the University grounds. In Melbourne there are also three Affiliated Colleges, and in both capitals these are connected with different religious bodies. In New Zealand there are four Affiliated Colleges—at Dunedin, Christchurch, Wellington, and Auckland, but, except in Christchurch, which is the seat of the Senate, these are wholly undenominational in character. In Adelaide there are no Affiliated Colleges attached to the University; and in New Zealand the University itself is an examining and not a teaching body, founded mainly on the principles of the London University. Affiliated Colleges.

The Australasian Universities are empowered to grant the same degrees as the British Universities, with the exception of degrees in Divinity. In all the Universities women have now been admitted to the corporate privileges extended to male students; and at the Sydney, Melbourne, and Adelaide Universities this includes qualifying for degrees in medicine. Degrees.

The number of degrees, including *ad eundem* degrees, conferred by those Universities of which returns have been made are as follows:—

Sydney	916
Melbourne (to 1890)	1,679
New Zealand	565

and there are upwards of 1,500 students qualifying for degrees at the present time.

RELIGION.

THE progress of all matters relating to denominational Religion since the early years of Australasian settlement has been steady and remarkable. For the first fifteen years after the foundation of the Colony of New South Wales only a single denomination was recognized by Government, or possessed either minister or organization—the Established Church of England. In those days the whole of Australasia was ecclesiastically within the Diocese of the Bishop of Calcutta, of which it formed an Archdeaconry; this continued until 1836, when the Bishopric of Australia was constituted, and the Rev. William Grant Broughton, D.D. (formerly Archdeacon), was consecrated the first Bishop. There are now twenty Bishoprics in the Colonies, including the Sees in New Zealand. Each Colony preserves its autonomy in church matters, but the Bishop of Sydney is nominal head or Primate within the boundaries of Australia and Tasmania. In 1872 the ties between the church and the various Colonies under the jurisdiction of the Primacy were strengthened by the adoption of one common constitution. A general assembly of representatives of each of these Colonies meets in Sydney every five years to discuss church affairs in general. New Zealand is excluded from this amalgamation, as it possesses a Primacy of its own. The Synodical system of Church Government, by means of a legislative body, consisting of the clergy and representatives of the laity, prevails throughout Australasia, whether as individual Colonies or collectively as a group.

Church of England.

Church of Rome. In 1803 a grudging recognition was extended to Roman Catholics, one of whose chaplains was then placed on the Government

establishment; but it was not until 1820 that any regular provision was made for an adequate staff of clergy. Until 1834 the Roman Catholics of Australia and Tasmania were under the jurisdiction of the Bishop of Mauritius, but in that year Sydney was constituted a see, and the Rev. John Bede Polding, D.D., was consecrated Bishop, with jurisdiction over the whole of the Continent, and Tasmania. Some eight years later this Episcopate was raised to the rank of an Archiepiscopal See. The present Archbishop of Sydney, who was created a Cardinal in 1885, is the head of the Roman Catholic Church throughout Australasia, and to assist him in the church administration there are five Archbishops, fifteen Bishops, and four Titular Bishops throughout the Colonies.

Presbyterian.

Amongst the earliest free colonists who settled in the Hawkesbury district was a small party of Presbyterians, and one of the first places of worship erected in the Colony was put up in 1810 by their voluntary exertions. Services were conducted there for years before any ordained minister of the denomination reached New South Wales; indeed it was not until 1823 that the Rev. Dr. Lang, the first Presbyterian minister in Australia, arrived in Sydney. The Presbyterian Church is united in a federated union, but the church in each Colony acts independently as regards local ecclesiastical administration, and preserves its autonomy in respect to funds and property. A Moderator is elected annually as a representative head in each Colony, but he cannot exercise independent jurisdiction.

Wesleyan.

The first Wesleyan minister came to New South Wales in 1815, but it was not until 1821 that a Wesleyan place of worship was erected in Sydney, and it was even later before the denomination was allowed to share in the Government provision for religion. Till 1873 the church in Australasia was affiliated with the British Wesleyan Conference, but in that year it was constituted an independent and separate conference. The church in each Colony holds annual sessions, and at triennial periods a general conference is convened for the whole body in Australasia.

State-aid.

In the eyes of the State all religions are equal in Australasia. State aid to all denominations has been for many years practically abolished in all the Colonies except Western Australia. South Australia, in 1851, was the first Colony to withdraw such aid after it had been in force only three years, and Queensland, in 1860, shortly after the assembling of the first Parliament, passed an Act abolishing any future maintenance to religion, and limited future payments to the clergy then actually in receipt of State aid. Only one of these now survives, who is in receipt of £100 per annum. New South Wales passed a similar Act in 1862, and the expenditure on this account, which in that year was over £32,000, had fallen in 1892 to £7,993. The other Colonies of the group subsequently abolished State aid with the exception previously mentioned, Victoria being the last to withdraw in 1875.

No other denominations beyond the four mentioned above were ever officially recognized, nor was any State contribution ever made towards the support of any other. This was no doubt owing to the fact that the greater portion of the inhabitants belonged to these persuasions. Nor has the enormous increase of population since then in any considerable degree altered this condition of things, though in different Colonies different bodies of Christians have represented a larger proportion of the people than in others. Thus, in New South Wales, Queensland, and Victoria the proportion of Roman Catholics has been, and still is, larger than in the other Colonies, while in New Zealand it has been much smaller. Presbyterians bear a greater proportion to the population in New Zealand than in any other Colony, while Wesleyans and Lutherans are more numerous in South Australia than elsewhere. The adherents of the Church of England predominate numerically in all the Colonies.

Proportion of different bodies.

The following tables show the number of adherents of the principal denominations in each colony at the census enumerations of 1871, 1881, and 1891 :—

Religious Denominations, 1871, 1881, and 1891.

Colony.	Year.	Church of England.	Roman Catholics.	Presbyterians.	Wesleyan and other Methodists.	Congregationalists.	Baptists.	Lutherans.	Salvation Army.	Hebrews.	Mahometans, Buddhists, Confucians, &c.	All other Religions.	Object to state Religion and Unspecified.	Total.
New South Wales	1871	229,243	147,627	49,122	39,566	9,253	4,151	†....	†....	2,395	7,455	9,223	5,946	503,981
	1881	342,359	207,606	72,545	64,352	14,328	7,307	4,836	†....	3,266	9,345	11,827	13,697	751,468
	1891	502,983	286,915	109,383	110,110	24,112	13,102	7,940	10,312	5,484	10,790	28,730	14,093	1,123,954
Victoria	1871	251,838	170,620	112,983	90,026	18,191	16,311	†....	†....	3,571	17,775	34,688	15,525	731,528
	1881	299,652	203,480	132,591	108,393	19,878	20,373	11,153	†....	4,330	11,292	36,149	15,055	862,346
	1891	401,375	248,585	166,911	148,429	22,099	27,878	15,535	13,519	6,459	6,987	59,249	22,814	1,139,840
Queensland	1871	43,764	31,822	15,373	7,206	2,647	2,897	†....	†....	291	3,188	10,215	2,701	120,104
	1881	73,920	54,376	22,609	14,351	4,764	5,583	16,889	†....	457	16,871	2,347	1,358	213,525
	1891	142,555	92,765	45,639	30,868	8,571	10,256	23,383	4,021	809	17,434	12,906	4,511	393,718
South Australia	1871	50,286	28,271	11,880	35,009	6,571	9,263	†....	†....	501	2,747	31,645	9,453	185,626
	1881	75,812	42,628	17,917	52,788	9,908	13,979	19,617	†....	762	4,151	28,061	14,242	279,865
	1891	89,271	47,179	18,206	60,857	11,882	17,547	23,328	4,356	840	4,255	27,724	14,986	320,431
Western Australia	1871	14,955	7,282	541	1,405	902	55	†....	†....	63	†....	150	†....	25,353
	1881	16,263	8,413	1,004	2,084	1,262	†....	†....	†....	†....	145	184	353	29,708
	1891	24,768	12,602	1,997	4,595	1,573	283	216	4	129	1,804	1,215	596	49,782
Tasmania	1871	54,404	22,657	9,296	7,371	4,031	955	†....	†....	238	4	2,829	†....	101,785
	*1881	59,785	23,055	9,133	10,955	4,066	1,836	†....	†....	†....	†....	6,875	†....	115,705
	1891	73,169	25,800	9,756	17,150	4,501	3,285	421	1,216	84	968	5,143	5,174	146,667
New Zealand	1871	107,241	35,608	63,624	22,004	3,941	4,732	†....	†....	1,262	2,612	5,877	9,492	256,393
	1881	203,333	68,984	113,108	46,282	6,699	11,476	5,773	†....	1,536	4,936	12,499	15,307	489,933
	1891	250,945	87,272	141,477	62,346	6,685	14,825	5,616	9,383	1,463	3,928	26,088	16,630	626,658
Australasia	1871	751,731	443,887	262,819	202,587	45,536	38,364	†....	†....	8,321	33,781	94,627	43,117	1,924,770
	1881	1,071,124	608,542	368,907	299,205	60,905	60,554	58,268	†....	10,351	46,740	97,942	60,012	2,742,550
	1891	1,485,066	801,118	493,369	434,355	79,423	87,176	76,439	42,811	15,268	46,166	161,055	78,804	3,801,050

* Estimated; religions were not enumerated at the Tasmanian Census of 1881. † Included in "All other Religions."

The figures for 1891, in the table just given, are exclusive of aborigines, while in those for 1871 and 1881 a few civilized aborigines were included in the returns for New South Wales and Victoria.

The following table shows the percentage of the principal denominations to the total population of each Colony at the enumerations of 1871, 1881, and 1891:—

	Colony.	Church of England.	Roman Catholics.	Presbyterians.	Wesleyan and other Methodists.	Congregationalists.	Baptists.	All Others.
		℗cent.	℗cent.	℗cent.	℗cent.	℗cent.	℗cent.	℗cent.
1871	New South Wales..	45·5	29·3	9·7	7 9	1·8	0·8	5·0
	Victoria	34·4	23·3	15·5	12·3	2·5	2·2	9·8
	Queensland	36·5	26·5	12·8	6·0	2·2	2·4	13·6
	South Australia ...	27·1	15·2	6·4	18·9	3·5	5·0	23·9
	Western Australia	59·0	28·7	2·1	5·6	3·6	0·2	0·8
	Tasmania	53·5	22·3	9·1	7·2	4·0	0·9	3·0
	New Zealand	41·8	13·9	24·8	8·6	1·5	1·9	7·5
	Australasia ...	39·1	23·1	13·6	10·5	2·4	2·0	9·3
1881	New South Wales..	45·6	27·6	9·6	8·6	1·9	1·0	5·7
	Victoria..... ...	34·7	23·6	15·4	12·6	2·3	2·4	9·0
	Queensland	34·6	25·5	10·6	6·7	2·2	2·6	17·8
	South Australia ...	27·1	15·2	6·4	18·9	3·5	5·0	23·9
	Western Australia.	54·7	28·3	3·4	7·0	4·3	...	2·3
	Tasmania	51·7	19·9	7·9	9·5	3·5	1·6	5·9
	New Zealand	41·5	14·1	23·1	9·4	1·4	2·3	8·2
	Australasia ...	39·1	22·2	13·4	10·9	2·2	2·2	10·0
1891	New South Wales..	44·8	25·5	9·7	9·8	2·1	1·2	6·9
	Victoria.....	35·2	21·8	14·7	13·0	1·9	2·5	10·9
	Queensland	36·2	53·6	11·6	7·8	2·2	2·6	16·0
	South Australia ..	27·9	14·7	5·7	19·0	3·7	5·5	23·5
	Western Australia.	49·7	25·3	4·0	9·2	3·2	0·6	8·0
	Tasmania	49·9	17·6	6·6	11·7	3·1	2·2	8·9
	New Zealand	40·0	13·9	22·6	9·9	1·1	2·4	10·1
	Australasia ...	39·1	21·1	13·0	11·4	2·1	2·3	11·0

Relative strength of Denominations.

From the foregoing tables it will be seen that, while there have been fluctuations in individual colonies, the relative strength of the principal denominations in the whole of Australasia has practically remained unaltered during the last twenty years. The Church of England at each Census numbered 39·1 per cent. of the population, while the Roman Catholic Church receded from 23·1 per cent. in 1871 to 22·2 per cent. in 1881, and still further to 21·1 per cent. in 1891. The Presbyterian Church also receded from 13·6 per cent. in 1871 to 13·4 per cent. in 1881, and to 13·0 in 1891, while the various Methodist bodies which have been classed together, increased from 10·5 per cent. in 1871 to 10·9 per cent. in 1881, and 11·4 per cent. in 1891. Congregationalists and Baptists taken together were equal at the three enumerations, but the former show a slight decrease during the twenty years, while the latter show a corresponding increase. The column headed "All others" also shows an increase from 9·3 per cent. to 11·0 per cent. during the period. This column contains all the minor denominations—the only ones amongst which that are at all numerous being Lutherans in Queensland and South Australia—those whose denomination could hardly be classed as a religion, and all those who, from conscientious scruples, took advantage of the clauses of the Census Acts by which the filling in of the column "Religious Denomination" was left optional.

Church of England.

While in 1871 the relative strength of the Church of England was greatest in the colonies in the following order:—Western Australia, Tasmania, New South Wales, New Zealand, Queensland, Victoria, and South Australia; the order in 1891 had changed to Tasmania, Western Australia, New South Wales, New Zealand, Queensland, Victoria, and South Australia.

Roman Catholic Church.

The Roman Catholic Church in 1871 was relatively strongest in New South Wales, in 1881 in Western Australia, and in 1891 again in New South Wales, with Queensland and Victoria following closely and South Australia and New Zealand last on the list.

Presbyterian Church.

The Presbyterian Church has always been most numerous in New Zealand and Victoria, and weakest in Western Australia, South Australia, and Tasmania.

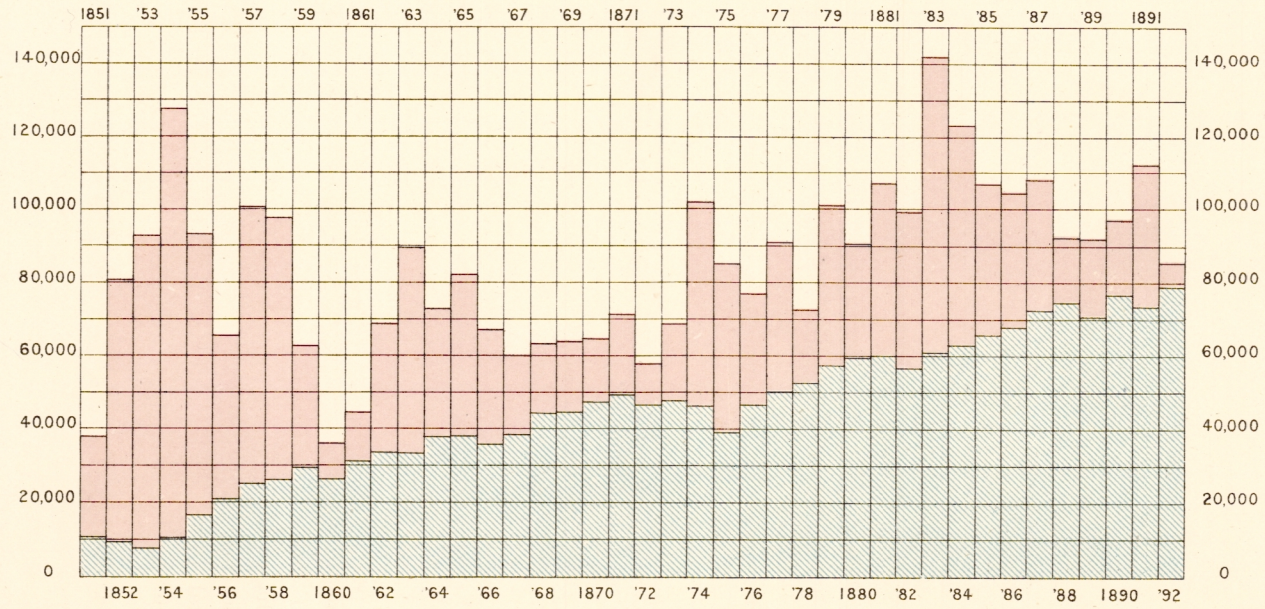
Methodists, &c.

The various Methodists Denominations were at each enumeration strongest in South Australia, where they numbered close upon one-fifth of the total population. They were also considerably above the average strength in Victoria, while the only Colony in which they fell much below the average was Queensland. Congregationalists and Baptists were also relatively most powerful in the Southern Colonies. The percentages shown in the column "All others" are unduly swollen in the case of Queensland and South Australia by the inclusion of Lutherans; were these omitted the numbers for 1891 would be fairly equal for all Colonies.

Salvation Army.

In the table showing the actual numbers of adherents of each of the principal denominations for 1891, the Salvation Army is a new element. Any adherents of this persuasion that may have existed in 1881 were grouped with "All other Religions."

INCREASE OF POPULATION



Printed at the Department of Lands, Sydney, N.S.W. 1893
N° of Lithograph D 93 13

POPULATION.

ON the 26th January, 1788, Captain Phillip arrived in Sydney Harbour, bringing with him an establishment of 1,030 people, all told. Settlement soon spread from the parent colony, first to Tasmania in 1803, and afterwards to other parts of the Continent and New Zealand; so that at the end of 1892 the population of Australasia had grown to 3,984,629 persons, thus distributed :— Early settlement of Australasia.

	Males.	Females.	Total.
New South Wales	646,378	550,672	1,197,050
Victoria	607,780	559,549	1,167,329
Queensland	237,965	183,332	421,297
South Australia	176,101	160,601	336,702
Western Australia	36,095	22,579	58,674
Tasmania	82,009	71,135	153,144
New Zealand	345,146	305,287	650,433
Australasia	2,131,474	1,853,155	3,984,629

If to these numbers, which are principally those of the people of European descent, there be added an estimated population of 200,000 Australian aborigines in an uncivilized state in Western Australia, South Australia, and Queensland, and the Maoris in New Zealand, who, according to the returns, numbered 41,993, the total population of Australasia at the end of 1892 was 4,226,562. Population in 1892.

The growth of the population of Australasia in different periods, commencing from the date of the first settlement, is Growth of population,

shown in the following series, an enumeration of the people having been taken in most of the years quoted :—

Years.	Population of Australasia.	Annual rate of Increase per cent.
1788	1,030	.....
1801	6,508	15·13
1821*	35,610	8·87
1831	79,306	8·34
1841	211,095	10·28
1851	430,596	7·36
1861*	1,252,994	11·30
1871*	1,924,770	4·39
1881*	2,742,550	3·60
1891*	3,809,895	3·34
1892	3,984,629	2.60

* Census populations.

Ratio of increase.

It would be but a reasonable expectation that the ratio of increase should fall as the population advanced, and such has been the case since 1851. The high rate of 11·3 per cent. from 1851 to 1861 is, of course, due to the gold discovery, which was so strong an incentive to immigration. The high annual increase between 1831 and 1841 is owing to the policy of State-aided immigration, which was then in vogue. Prior to this period the high average arose from the small number operated on.

Increase in other countries.

The following are the annual rates of increase over various periods in certain countries undergoing extensive settlement :—

Country.	Period.	Annual rate of Increase.
Argentine Republic	1869–87	4·62
Cape Colony (European or white races)	1875–91	2·23
Brazil	1872–88	2·17
Canada	1881–91	1·12
Chili	1885–91	1·83

Increase of Australasian population.

The population of Australasia, as shown by the Census of 1891, had increased threefold since 1861, and nearly twofold since 1871, while the annual *ratio* of increase for the whole thirty years was 3·78 per cent. Taking the Colonies individually, the rate of increase for Queensland is the highest, a circumstance partly to be attributed to the large numbers introduced under the system

of State-aided immigration which has prevailed in that Colony for many years, but the largest numerical increase was that of New South Wales. The population of each Colony (exclusive of Aborigines, a few in New South Wales and Victoria excepted) in Census periods is shown below, commencing with 1861 :—

Colony.	1861.	1871.	1881.	1891.	Annual Increase per cent., 1861-1891
New South Wales	350,860	503,981	751,468	1,132,234	3·98
Victoria	540,322	731,528	862,346	1,140,405	2·52
Queensland	30,059	120,104	213,525	393,718	8·95
South Australia	126,830	185,626	279,865	320,431	3·12
Western Australia	15,691	25,353	29,708	49,782	3·92
Tasmania	90,211	101,785	115,705	146,667	1·63
New Zealand.....	99,021	256,393	489,933	626,658	6·34
Australasia	1,252,994	1,924,770	2,742,550	3,809,895	3·78

Natural increase and increase from immigration.

The following table gives the total increase of each colony for the thirty-two years, 1861–92, and also distinguishes the natural increase arising through the excess of births over deaths from the increase caused by the excess of arrivals over departures :—

Colony.	Excess of		Total Increase.
	Births over Deaths.	Immigration over Emigration.	
New South Wales.....	502,526	345,978	848,504
Victoria	498,901	130,581	629,482
Queensland	139,535	253,706	393,241
South Australia	173,139	39,451	212,590
Western Australia.....	17,474	25,700	43,174
Tasmania.....	62,780	2,589	65,369
New Zealand	308,445	262,877	571,322
Australasia	1,702,800	1,060,882	2,763,682

Movements of Population.

The information conveyed by the above figures is important, as illustrating not only the movement of population but also the effect of local influences upon immigration ; as, for example, the attraction of liberal land laws, the fertility of the soil, the permanence of employment, and the policy of assisted immigration. The bare statement, however, of the gross increase of each

colony due to immigration, if taken by itself is apt to be misleading, since the original density of population must be deemed a factor affecting the current of immigration. The following figures show the density of population in each colony at the various dates corresponding with those given in a preceding table :—

Density of Population.

	1861.	1871.	1881.	1891.
New South Wales	1·13	1·62	2·42	3·65
Victoria	6·15	8·32	9·81	12·98
Queensland	·04	·18	·32	·59
South Australia	·14	·20	·31	·35
Western Australia	·01	·02	·03	·05
Tasmania	3·44	3·88	4·41	5·59
New Zealand	·95	2·45	4·69	6·00
Australasia	·40	·61	·87	1·21

The population of Australasia, even including the native races, only reaches a density of 1·28 persons per square mile, which is far below that of any other civilised country. Excluding, however, Australian Aborigines and Maoris, the density is not more than 1·21 per square mile.

Density of population in other countries.

A comparison with the density of population in the older countries of the world is of little practical use, unless as giving some indication of the future of Australasia, when its population shall have reached the proportions found in the old world. The latest authoritative statement, that compiled early in 1891 for the *Statesman's Year Book*, by Mr. E. G. Ravenstein, F.R.G.S., gives the density of the populations of the great divisions of the Globe, as follows :—

Continent.	Area in square Miles.	Population.	Persons per square Mile.
Europe	3,555,000	380,200,000	106·9
Asia	14,710,000	830,000,000	56·4
Africa	11,514,000	127,000,000	11·0
North America	6,446,000	89,250,000	13·9
South America	6,837,000	36,420,000	5·3
*Australasia	3,288,000	4,730,000	1·4
Polar Regions	4,889,000	300,000	0·06
The World	51,239,000	1,467,900,000	28·6

*Inclusive of Pacific Islands.

Effect of the discovery of gold.

There had always been, even in the earliest years of settlement, a steady if not a large stream of immigration to these colonies, but in 1851, memorable for the finding of gold, this condition of things showed a marked change. Thousands of men in the prime of life were attracted to the shores of Australia by the hope of speedily acquiring wealth from the rich gold-fields then recently discovered, and by far the greater number of these new arrivals settled in the new colony of Victoria, which had then just been separated from New South Wales. This rush continued for some years afterwards, causing an unprecedented increase in the population of the newly formed colony. In 1850, just previous to the gold rush, the population of the northern and southern portions of New South Wales was :—

New South Wales—	
Port Phillip (now known as Victoria)	76,162
Remaining portion of the Colony	189,341

But five years afterwards the positions were reversed, for Port Phillip, then an independent Colony, had a population considerably larger than that of its parent, New South Wales :—

Victoria	364,324
New South Wales	277,579

Victoria enjoyed the advantage in population and increased the lead yearly until 1871, when its population exceeded that of New South Wales by no less than 228,230. That year marked the furthest period of separation ; nearly every subsequent year showed a nearer approach in numbers, until at the census of 1891 the Southern Colony had only a lead of 8,171, but at the end of that year the positions were again reversed, and New South Wales had a larger population than Victoria by about 7,500. By the end of 1892 the parent Colony, it is estimated, had increased her lead to nearly 30,000.

Effect of the discovery of gold in Queensland and New Zealand.

Queensland and New Zealand, also, owe much of their remarkable progress to the discovery of gold. In New Zealand the gold fever broke out in 1861, when the population numbered only 99,021, and the period of its activity extended over many

years. At the census taken in 1891, the population had reached 626,658 souls, exclusive of Maoris, or fully six times that of 1861. In Queensland the attractive force of the gold-fields came into active operation at a later date, and may still be considered a strong factor in stimulating the growth of population in that Colony.

Increase due to immigration.

Much of the increase, especially in New South Wales, Queensland, and New Zealand, was due to assisted immigration. The following table shows the number of all immigrants introduced into the Colonies, either wholly or partly at the expense of the State, to the end of 1891 :—

Colony.	Prior to 1881.	1881 to 1891.	Total.
New South Wales	114,253	34,269	148,522
Victoria	140,102	.....	140,102
Queensland	52,399	106,059	158,458
South Australia	88,050	7,298	95,348
Western Australia.....	889	4,686	5,575
Tasmania.....	18,965	2,734	21,699
New Zealand	*100,920	14,658	*115,578
Australasia.....	515,578	169,704	685,282

* Exclusive of number prior to 1870, of which no record can be found.

The following tables shows the increase of population by excess of immigration over emigration for four decennial periods ending with 1890 and for the two years 1891 and 1892 :—

Colony.	1851-60.	1861-70.	1871-80.	1881-90.	1891-92.
New South Wales..	95,041	45,539	103,284	164,200	26,983
Victoria	398,753	38,935	*12,682	112,093	*7,872
Queensland	†	69,191	73,849	116,060	9,135
South Australia ...	33,024	17,949	34,569	*16,189	3,122
Western Australia..	6,867	5,319	*339	12,496	10,550
Tasmania	6,770	*3,228	*1,427	5,572	1,672
New Zealand.....	44,142	119,237	132,976	9,065	1,599
Australasia ...	584,597	292,942	330,230	403,297	45,189

* Denotes excess of emigrants. † Included in New South Wales figures.

Taking the last eleven years, which the following figures illustrate, it will be seen that no Colony exhibits uniformity in the immigration returns, while some show in several years an excess of departures:—

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.	Australasia.
1882	16,034	6,563	16,456	186	263	587	2,375	42,464
1883	27,278	6,597	33,656	3,665	562	689	8,657	81,104
1884	23,944	8,525	17,543	584	1,075	816	7,724	60,211
1885	24,829	9,027	9,829	6,895*	1,883	388*	2,757	41,042
1886	18,073	15,436	7,695	8,586*	4,208	302*	199*	36,325
1887	7,202	15,445	11,527	2,884*	2,421	1,797	211	35,719
1888	6,633	25,757	5,651	8,477*	1,053*	383*	10,548*	17,580
1889	8,241	9,794	4,340	2,453*	816	1,172	701*	21,209
1890	15,293	9,973	764*	2,951*	1,869	418	3,181*	20,657
1891	20,268	4,538	7,820	985*	6,078	4,043	3,359*	38,403
1892	6,715	12,410*	1,315	4,107	4,472	2,371*	4,958	6,786

* Denotes excess of departures.

AGES OF THE PEOPLE.

Average ages of the people.

The average age of the population of Australasia was 24·5 years; the average age of the males was 25·5 years, and that of the females was 23·3 years. Taking the colonies separately it will be seen from the following table that the oldest average population was that of Victoria 25·6 years, and the youngest that of Queensland, 23·7 years. The male population of Western Australia had the highest age average, 27·6 years, owing to the large influx of adult males some few years since, attracted thither by the discoveries of gold at Kimberley and elsewhere. The youngest male population was in New South Wales and South Australia, which averaged 24·7 and 25·1 years respectively. The youngest female population was found in Queensland, where the average was 21·5 years; the oldest was in Victoria, 24·6 years:—

Colony.	Males.	Females.	Total.
New South Wales	25·1	22·5	23·9
Victoria	26·5	24·6	25·6
Queensland	25·2	21·5	23·7
South Australia	24·7	23·8	24·3
Western Australia	27·6	22·0	25·3
Tasmania	25·6	23·7	24·7
New Zealand	25·2	23·4	24·1
Australasia	25·5	23·3	24·4

Circumstances affecting the averages.

In looking at these figures it must be remembered that the same average may be due to opposite causes ; for instance, a large middle-age population with a small proportion of children and old people, as in Queensland, gives much the same result as a large population at the dependent ages and a small proportion of those at the supporting ages, as in Tasmania. The following table shows,

Age groups of males.

the number of males at the dependent ages from infancy to 15 years ; at the supporting ages from 15 to 65 ; and the old age group, or from 65 years upwards :—

Colony.	Dependent Ages up to 15 years.		Supporting Ages, 15 and under 65.		Old Ages, 65 and over.	
	Number.	Percentage of Male Population.	Number.	Percentage of Male Population.	Number.	Percentage of Male Population.
New South Wales..	217,991	35·85	373,346	61·41	16,666	2·74
Victoria.....	198,692	33·22	375,852	62·84	23,545	3·94
Queensland	74,179	33·15	145,983	65·23	3,617	1·62
South Australia ...	64,004	38·37	97,293	58·33	5,504	3·30
Western Australia.	8,677	29·11	20,030	67·20	1,100	3·69
Tasmania	29,002	37·39	44,260	57·07	4,298	5·54
New Zealand	126,531	38·01	197,994	59·48	8,352	2·51
Australasia	~~2,036,016~~ 719,130	35·30	1,254,758	61·60	63,082	3·10

Age group distribution of males.

It will have been noticed in the table on the preceding page that during certain years, notably 1885 to 1891, there was an exodus of population from New Zealand, South Australia, and Tasmania. The persons who left were mainly able-bodied men in search of openings for their labour. It is to be expected that the number of males of the supporting ages in those Colonies is below the average. The reverse is the case in Western Australia, where the proportion of dependent males is smaller than that of any other Colony, while the proportion of men of the supporting ages is greater. These facts are to be accounted for by the immigration into Western Australia of large numbers of adult males, many of whom probably came from one of the three colonies first mentioned. The high birth-rate of New South Wales accounts for the larger proportion of those of dependent ages, as compared with

those of Victoria, but at the supporting ages there is very little difference between them. With regard to the old age group the proportion in Queensland, 1·62 per cent., is undoubtedly low. Tasmania, with 5·54 per cent., has the largest proportion of aged inhabitants, and Victoria comes next with 3·94 per cent., while the proportion of inhabitants 65 years and over in New South Wales is only 2·74 per cent., or one-half the proportion shown by Tasmania. It is interesting to note that at the Census of 1881 Queensland had the greatest proportion of population at supporting ages, nearly 60 per cent. of her total; at that period Victoria came next, having 59 per. cent ; Western Australia was third, with nearly 59 per cent. ; the proportion in South Australia was slightly lower, while that of New South Wales was rather less than 58 per cent.

Comparison with Census of 1881.

The period in males from 20 to 40 years is generally called "the soldiers' age," as the men included in that group would naturally be those first called upon to undertake the defence of the country in the event of war. It will be seen from the following table that Australasia has a force of nearly 700,000 men to draw upon for this purpose :—

Males of Military ages.

New South Wales	~~209,589~~	209,589
Victoria	~~207,004~~	206,181
Queensland	~~86,760~~	86,766
South Australia	~~53,964~~	53,964
Western Australia	~~12,020~~	12,109
Tasmania	~~25,150~~	25,155
New Zealand	~~94,939~~	94,942
Australasia	689,426	688,906

Thus, it would seem, 60 per cent. of the effective military force of Australasia would have to come from New South Wales and Victoria, the proportion from the first-named Colony being 30·40, and 30·03 from Victoria. The next largest proportion, 13·77 per cent., would come from New Zealand, and Queensland would furnish 12·58 per cent., South Australia 7·83 per cent.,

Tasmania 3·65 per cent., and Western Australia 1·74 per cent.

Military ages at Census of 1881.

At the census of 1881 the males of military age in Australasia numbered 451,700, of whom New South Wales contributed 25·27 per cent., Victoria 29·18 per cent., Queensland 10·28 per cent., South Australia 11·63 per cent., Western Australia 0·96 per cent., Tasmania 3·53 per cent., and New Zealand 19·15 per cent. These figures show that while South Australia has only increased her actual number of males from 20 to 40 years of age by 1,435, she has declined in proportion to the whole Australasian population of those ages from 11·63 per cent. in 1881 to 7·83 in 1891. All the other colonies show more or less a proportionate as well as a numerical increase during the same period, with the exception of New Zealand, which shows an increase of 8,425 in the actual number, but a decrease in the percentage to the total from 19·15 to 13·77.

Age group distribution of females.

The female population of Australasia may be conveniently grouped into three divisions as follows:—Dependent ages, from infancy to 15 years; reproductive ages, from 15 to 45; and those over 45 years of age. The numbers of each class in the several provinces are shown in the following figures:—

Colony.	Dependent ages, up to 15 years.		Reproductive ages, 15 and under 45.		Ages of 45 years and over.	
	Number.	Percentage to Female Population.	Number.	Percentage to Female Population.	Number.	Percentage to Female Population.
New South Wales..	213,198	41·32	239,503	46·42	63,250	12·26
Victoria.....	194,257	35·86	263,593	48·65	83,901	15·49
Queensland	79,942	47·04	71,852	42·28	18,145	10·68
South Australia ...	62,174	40·47	68,796	44·78	22,660	14·75
Western Australia.	8,412	42·11	9,253	46·32	2,310	11·57
Tasmania	28,324	40·98	30,599	44·28	10,184	14·74
New Zealand.....	123,887	42·17	131,451	44·74	38,443	13·09
Australasia.....	710,194	40·26	815·047	46·20	238,893	13·54

Proportionate distribution of females.

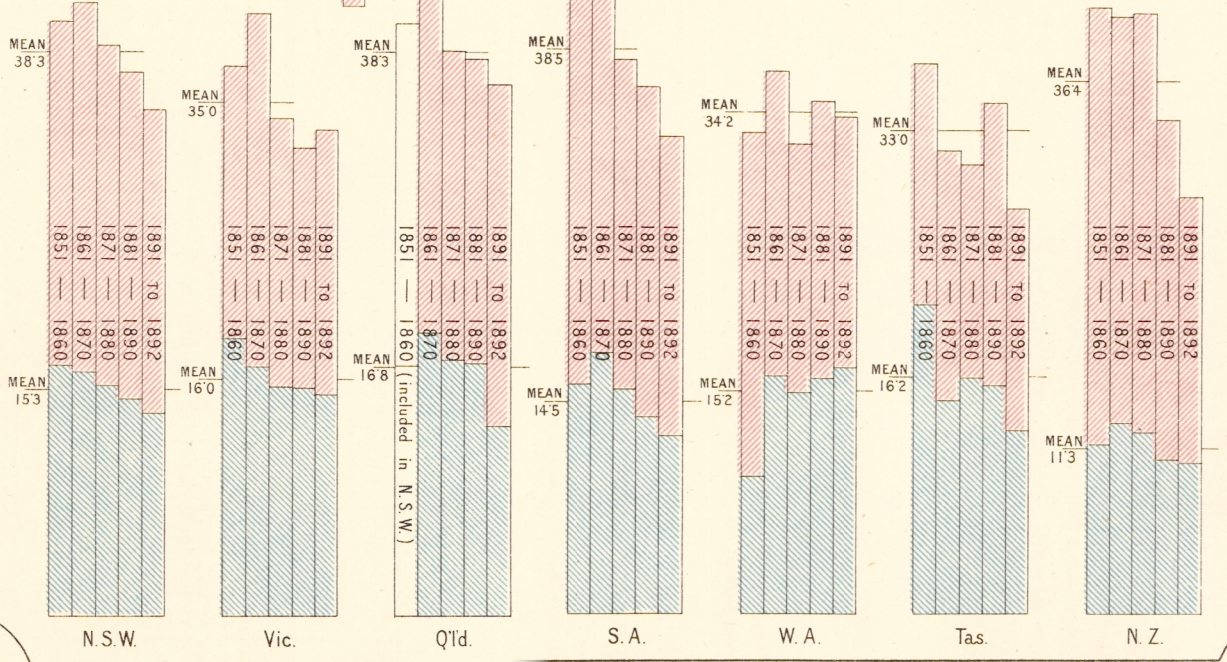
The female population, it will be seen, is distributed among the various colonies in much more even proportions than the males.

BIRTH & DEATH RATES

Birth-rate per 1000 shewn thus

Excess of Births over Deaths „

Death-rate per 1000 shewn thus



Printed at the Department of Lands, Sydney, N.S.W. 1893

N° of Lithograph D 83.17

Victoria has the least ratio of dependent females, the greatest proportion of those of reproductive ages, and the highest relative number of females over the reproductive age. The rates for the other provinces are remarkably even, New South Wales and Western Australia having almost an identical proportion of reproductive females, while South Australia, Tasmania, and New Zealand are nearly equal at a slightly lower rate.

BIRTHS AND DEATHS.

The number of births in each Colony and in the whole of Australasia, in quinquennial periods from 1861 to 1890, and in the two years 1891 and 1892, was as follows:—

Colony.	1861-65.	1866-70.	1871-75.	1876-80.	1881-85.	1886-90.	1891-92.
New South Wales	79,958	92,643	106,543	127,572	158,905	188,300	80,104
Victoria	123,353	131,052	136,363	132,347	140,258	172,307	76,334
Queensland	11,761	22,622	29,279	37,535	48,979	70,150	29,618
South Australia.....	30,472	35,067	36,398	46,310	56,618	53,200	21,307
Western Australia ..	3,352	3,724	4,033	4,611	5,446	7,696	3,634
Tasmania	15,454	14,679	15,313	17,165	21,425	23,710	9,936
New Zealand	26,611	46,770	59,891	88,205	96,482	94,071	36,149
Australasia	290,961	346,557	387,820	453,745	528,113	609,434	257,082

The birth-rate of each Colony for the last eleven years was as follows:—

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.	Australasia.
1882...	37·20	30·06	35·85	37·50	35·67	33·84	37·43	34·79
1883...	37·32	30·26	36·92	37·53	33·57	34·84	36·46	34·86
1884...	38·44	30·93	35·75	38·62	33·38	36·52	36·18	35·44
1885...	37·79	31·33	36·66	38·71	34·53	36·18	34·70	35·22
1886...	37·43	31·30	38·16	35·95	38·15	35·47	33·15	34·74
1887...	37·06	32·50	38·94	34·70	36·63	35·40	32·14	34·77
1888...	37·20	32·70	39·12	33·55	34·47	34·83	31·33	34·62
1889...	34·97	33·35	38·13	32·80	35·95	33·92	30·23	33·80
1890...	35·36	33·60	39·66	32·54	33·09	33·49	29·42	33·95
1891...	34·60	33·62	36·67	33·30	35·05	33·21	29·01	33·44
1892...	34·41	32·55	35·84	31·91	33·01	32·48	27·83	32·64

The number of deaths in each Colony and in the whole of Australasia, in quinquennial periods from 1861 to 1890, and in the two years 1891 and 1892, is shown in the following table :—

Colony.	1861-65.	1866-70.	1871-75.	1876-80.	1881-85.	1886-90.	1891-92.
New South Wales	31,561	36,466	40,909	53,256	66,103	71,457	31,897
Victoria	49,452	55,136	59,759	62,811	66,811	84,648	34,480
Queensland	5,751	9,312	12,869	17,284	25,731	28,040	10,436
South Australia.....	10,840	12,963	15,475	18,026	21,616	19,361	7,952
Western Australia....	1,399	1,711	2,068	2,003	2,709	3,332	1,800
Tasmania.....	6,953	6,962	8,060	8,994	9,790	10,389	3,754
New Zealand	10,001	13,328	19,354	25,254	29,074	29,746	12,977
Australasia	115,957	135,878	158,494	187,628	221,834	246,973	103,296

The death-rate of each Colony for the last eleven years is given in the following table ; but the statement, viewed in the light of a comparison between the Colonies, is not in every case just, as no account is taken of the ages of the people :—

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.	Australasia.
1882...	16·05	15·32	17·99	15·19	14·08	15·95	11·22	15·02
1883...	14·61	14·29	18·82	14·90	17·77	17·36	11·51	14·52
1884...	16·10	14·48	22·97	15·61	21·57	15·88	10·47	15·29
1885...	16·48	15·01	19·58	12·81	17·27	15·89	10·71	14·98
1886...	15·05	15·18	16·91	13·62	20·97	15·15	10·54	14·42
1887...	13·38	15·74	14·89	12·64	16·52	16·15	10·31	13·78
1888...	13·91	15·44	15·18	12·00	15·28	14·84	9·46	13·62
1889...	13·87	17·79	16·24	11·13	13·78	14·96	9·45	14·35
1890...	12·90	16·10	14·51	12·32	11·44	14·74	9·65	13·49
1891...	14·26	16·26	12·87	13·02	17·05	15·00	10·34	14·03
1892...	13·22	13·68	12·66	11·29	16·63	13·53	10·06	12·68

Death-rate of Colonies compared with other nations.

Compared with European countries the Colonies occupy a very favourable position in respect to both birth and death rates. The Australasian birth-rate is high, and in European countries where

it is higher it will be seen, on reference to the subjoined table, that the death-rate is so considerably in excess that the difference between the two, representing the gain to each country by natural increase, is largely in favour of Australasia. The following are the average rates per 1,000 inhabitants for the ten years ending 1890 for European countries, and for the ten years 1882–1893 for the Australasian Colonies :—

Country.	Birth Rate.	Death Rate.	Excess of Births per 1,000 inhabitants.
New South Wales ..	36·46	14·38	22·08
Victoria	32·21	15·40	16·81
Queensland	37·58	15·46	22·12
South Australia	34·96	12·93	22·03
Western Australia	34·78	14·83	19·95
Tasmania	34·63	15·35	19·28
New Zealand	32·04	10·25	21·79
Australasia	34·35	14·12	20·23
England and Wales	32·49	19·14	13·35
Scotland	32·32	19·18	13·14
Ireland	23·39	17·94	5·45
United Kingdom	31·21	18·98	12·23
France ..	23·88	22·01	1·87
Germany	36·76	25·10	11·66
Belgium	29·98	20·31	9·67
Netherlands	34·20	20·97	13·23
Austria	37·95	29·51	8·44
Hungary	44·20	32·59	11·61
Switzerland	28·08	20·82	7·26
Italy	37·76	27·28	10·48
Denmark	32·07	18·61	13·46
Norway	30·63	16·94	13·69
Sweden	29·20	16·93	12·27

Salubrity of the climate.

No better testimony to the salubrity of the climate of Australasia could be obtained than is afforded by these figures. There are, of course, various circumstances, other than climatic, which would tend to make the mortality lighter in these than older-settled countries ; but when all possible allowances are made for such circumstances, a comparison between these Colonies and the countries of Europe is still significantly favourable to Australasia.

MARRIAGES.

The number of marriages in each Colony, and in the whole of Australasia, in quinquennial periods from 1861 to 1890, and in the two years 1891 and 1892, was as follows :—

Colony.	1861–65.	1866 70.	1871–75.	1876–80.	1881–85.	1886–90.	1891–92.
New South Wales	16,920	18,271	21,210	25,904	35,737	38,671	16,458
Victoria	22,237	22,902	24,368	25,416	33,589	42,832	16,515
Queensland	3,689	4,648	6,276	7,466	11,632	15,271	5,679
South Australia.....	6,226	6,435	7,472	10,682	12,379	10,334	4,438
Western Australia ..	765	828	835	975	1,115	1,495	825
Tasmania....	3,340	3,143	3,290	4,087	5,002	4,796	1,983
New Zealand	7,240	9,955	12,050	16,220	18,102	18,097	7,807
Australasia	60,417	66,182	75,501	90,753	117,556	131,496	53,705

The marriage-rate of each Colony for the last eleven years is shown in the following table :—

Year.	New South Wales.	Victoria.	Queens-land.	South Australia.	Western Australia.	Tasmania.	New Zealand.	Austral-asia.
1882...	8·70	7·09	8·56	8·75	7·04	8·11	7·09	7·87
1883...	8·83	7·44	8·93	8·53	6·88	9·16	6·86	8·03
1884...	8·47	7·74	8·91	8·33	7·02	8·00	6·93	7·98
1885...	8·22	7·73	8·93	7·86	7·37	8·22	6·72	7·84
1886...	8·06	7·86	8·45	6·35	7·73	7·55	5·99	7·49
1887...	7·55	7·64	8·40	6·33	7·44	7·02	5·98	7·26
1888...	7·57	8·48	8·93	6·65	6·90	6·93	6·00	7·48
1889...	7·06	8·43	8·27	6·56	6·77	6·89	5·95	7·36
1890...	7·15	8·21	8·22	7·02	5·89	6·64	6·11	7·36
1891...	7·39	7·68	7·21	7·31	8·11	6·63	6·05	7·20
1892...	6·77	6·65	6·67	6·41	7·36	6·51	6·23	6·60

During the last two years the marriage-rate has decreased to a considerable extent in all the Colonies, with the exception of Western Australia; but even in that Colony it was much lower in 1892 than in 1891. This is another proof of the truth of the often-repeated statement that times of commercial depression always exert an adverse influence on the marriage-rate.

It must be borne in mind that the above are the ratios of *marriages* to population. To ascertain the ratios of *persons* married it is therefore necessary to double the figures in each case.

A comparison of the marriage-rate of Australasia with that of other countries, where the social conditions are essentially different, is not of much value, and therefore is not given here.

NATIVE RACES.

Australian Aborigines.

At the census of 1891 only 38,879 aborigines were enumerated, of whom 8,280 were in New South Wales, 565 in Victoria, 23,789 in South Australia, and 6,245 in Western Australia. The figures relating to New South Wales and Victoria include all aborigines now living in those provinces, but the returns from the other Colonies are very imperfect. The aborigines of Tasmania are extinct, but the Tasmanian Census of 1891 enumerates 139 half-castes, which are included in the general population. It has been asserted that there are some 70,000 aborigines in Queensland. This is, however, a very crude estimate, and may be far wide of the truth. In the case of South Australia, a large number of the aborigines in the Northern Territory are entirely outside the bounds of settlement, and it seems probable that they are as numerous in that Colony as in Queensland. The census of Western Australia includes only those aboriginals in the employment of the colonists, and as large portions of this, the greatest in area of all the Australasian Colonies, are as yet unexplored, it may be presumed that the number of aborigines enumerated in the census is very far short of the total in the Colony. The aboriginal population of the entire Continent may be set down at something like 200,000.

The Maoris.

The original inhabitants of New Zealand, or Maoris, as they are called, are quite a different race. They are gifted with a considerable amount of intelligence, quick at imitation, and brave

even to rashness. According to the census of 1881 they numbered 44,097. Like the Australian aborigines they appear to be decreasing in number, the census of 1886 enumerating only 41,432, and that of 1891, 41,993 (22,861 males and 19,132 females). In these figures are included 2,681 half-castes (1,469 males and 1,212 females), and 40 Morioris at Chatham Islands (26 males and 14 females. It is said that at the time the colonists first landed the number of Maoris was fully 120,000, but this, like all other estimates of aboriginal population, is founded on very slight information.

ALIEN RACES.

Chinese in the Colonies in 1891.

At the census of 1891 the Chinese and half-caste Chinese in the whole group of Colonies numbered 42,521, distributed as follows :—

New South Wales	14,156
Victoria	9,377
Queensland	8,574
South Australia	3,997
Western Australia	917
Tasmania	1,056
New Zealand	4,444
Australasia	42,521

Prohibitive legislation.

Since 1880 it has been deemed expedient by the Governments of all the Colonies except Western Australia, and South Australia as far as her Northern Territory is concerned, to enact prohibitive laws against the immigration of Chinese, and their migration from one Colony to another. For several years a poll-tax of £10 was imposed, but now, in accordance with the most recent legislation on the subject, masters of vessels are forbidden under a heavy penalty to bring more than one Chinese to every 300 tons, and a poll-tax of £100 is charged on landing, except in Western Australia, where the tax is £10, and in the Northern Territory where no tax is imposed. These stringent

regulations have had the effect of bringing about the almost entire cessation of this class of immigration.

The only other alien race present in large numbers in any of the Colonies are the Polynesians in Queensland, where they numbered 9,428 at the Census of 1891. Polynesians in Queensland.

NATURALIZATION.

The number of persons naturalised in Australasia during 1891 was 922; of these over one-third belonged to Queensland, New South Wales showing the next highest figures. The following are the returns for each Colony:— Persons naturalised

Colony.	Germans and other German speaking nations.	Scandinavians.	Chinese.	Others.	Total.
New South Wales	66	76	.....	49	191
Victoria	62	16	.....	73	151
Queensland	206	88	.....	39	333
South Australia	77	18	.....	18	113
Western Australia	.....	.....	.....	.....	.....
Tasmania	3	2	23	1	29
New Zealand.....	37	35	7	26	105
Australasia	451	235	30	206	922

CITIES AND TOWNS.

The progress of the chief cities of Australasia has been no less remarkable than that of the Colonies themselves, and has no parallel among the cities of the old world; even in America the rise of great cities has been accompanied by a corresponding increase in the rural population, but in these Colonies, perhaps for the first time in history, is presented the spectacle of magnificent cities growing with marvellous rapidity, and embracing within their limits one-third of the population of the Colonies, of which they are the seat of Government. The abnormal aggregation of the population into their capital cities is a most unfortunate Progress of chief cities.

element in the progress of these Colonies, and is one which seems to become every year more marked.

Population of capital cities of Colonies at various dates.

The increase in the population of the chief cities of Australasia and the estimated numbers of their inhabitants at the various census periods, are given in the following table, which illustrates the remarkable progress referred to :—

	1841.	1851.	1861.	1871.	1881	1891.
Sydney	29,973	53,924	95,789	137,776	224,939	383,386
Melbourne	4,479	23,143	139,916	206,780	282,947	490,896
Brisbane	*829	2,543	6,051	15,029	31,109	93,657
Adelaide	†8,480	‡14,577	18,303	42,744	103,864	133,252
Perth	.....	.....	.....	5,244	5,822	8,447
Hobart	.....	.. ..	19,449	19,092	21,118	33,450
Wellington.....	.....	.....	.....	7,908	20,563	33,224

* In 1846. † In 1840. ‡ In 1850.

Proportion of population in chief cities.

The aggregation of population is most marked in the case of Melbourne, but Adelaide and Sydney are also conspicuous. The proportion of population in each capital compared with that of the whole Colony is set forth in the subjoined table, for the three years 1871, 1881 and 1891 :—

	1871.	1881.	1891.
	Per cent.	Per cent.	Per cent.
Sydney.....	27·34	29·93	33·86
Melbourne	28·27	32·81	43·05
Brisbane	12·51	14·57	23·79
Adelaide	23·03	37·11	41·59
Perth	20·68	19·60	16·97
Hobart	18·76	18·25	22·81
Wellington	3·08	4·20	5·30

The percentage of New Zealand population resident in Wellington is small, but, though it is the capital of the Colony, this city is greatly exceeded in population by Auckland, as well as Dunedin and Christchurch; but even in the largest of these cities—Auckland—the population is not more than 8·18 per cent. of that of the whole Colony.

The following is a list of the cities and towns of Australasia with a population, at the Census of 1891, exceeding 5,000 ; in all cases the suburbs are included :— Population of principal towns.

City or Town.	Population.	City or Town.	Population.
New South Wales—		Queensland—*continued*—	
Sydney	383,386	Gympie	8,449
Newcastle	50,705	Ipswich	7,625
Broken Hill	19,789	Toowoomba	7,007
Parramatta	11,677	South Australia—	
Goulburn	10,916	Adelaide	133,252
Maitland	10,214	Port Adelaide	20,644
Bathurst	9,162	Western Australia—	
Albury	5,447	Perth	8,447
Orange	5,064	Freemantle	5,607
Victoria—		Tasmania—	
Melbourne	490,896	Hobart	33,450
Ballarat	46,033	Launceston	17,208
Bendigo	37,238	New Zealand—	
Geelong	24,283	Auckland	51,287
Warrnambool	6,582	Christchurch	47,846
Castlemaine	5,982	Dunedin	45,869
Stawell	5,183	Wellington	33,224
Queensland—		Invercargill	7,962
Brisbane	93,657	Napier	8,341
Rockhampton	13,380	Nelson	6,626
Maryborough	9,700	Oamaru	5,621
Townsville	8,564	Wanganui	5,011

The estimated populations of the capitals of the Australasian Colonies on 31st December, 1892, were as follows :— Capital cities.

Sydney	411,710
Melbourne	474,810
Brisbane	100,217
Adelaide	136,766
Perth	11,117
Hobart	34,926
Wellington	37,013

BIRTH-PLACES.

One of the subjects of inquiry at the Census of 1891, as at previous enumerations, related to the birthplaces of the population. The result of the tabulation shows that while there are differences in the component parts of the population in the several Colonies, these differences are slight, and the great bulk of the people, to the extent of fully 95 per cent., is of British origin. Probably the population of Australasia is more British origin of the people.

homogeneous than that of most European countries, for even in Queensland, where people of foreign descent are proportionately more numerous than in any of the other Colonies, they do not amount to more than 10 per cent. of the total population. The subjoined table shows, in a condensed form, the results of the tabulation of the birthplaces in each Colony as well as the whole of Australasia, the figures being exclusive of aborigines, and inclusive, in the case of European countries, of their Colonies and possessions :—

Birthplaces.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.	Australasia.
New South Wales	725,015	19,775	17,023	2,154	555	1,180	2,833	768,535
Victoria	40,768	713,074	7,462	6,609	1,036	4,205	8,941	782,095
Queensland	10,173	2,736	176,971	405	208	203	481	191,177
South Australia	17,716	25,369	1,449	217,730	1,161	674	983	265,022
Western Australia	464	753	63	588	27,825	69	76	29,838
Tasmania	5,851	16,297	1,004	722	108	107,901	2,629	134,612
New Zealand	9,015	12,026	1,117	567	182	963	366,716	390,586
Australasia	809,002	790,070	205,089	228,775	31,075	115,195	382,659	2,561,865
England and Wales	154,229	162,907	77,187	48,821	9,812	17,443	119,284	589,683
Scotland	36,821	50,667	22,400	8,874	1,211	3,845	51,916	175,734
Ireland	75,051	85,307	43,036	14,369	3,499	5,687	47,634	274,583
United Kingdom	266,101	298,881	142,623	72,064	14,522	26,975	218,834	1,040,000
British Possessions—								
In Europe	177	131	71	296	39	14	111	839
In Asia	2,105	1,853	1,129	602	459	389	1,168	7,705
In Africa	738	1,008	240	222	90	65	340	2,703
In America	1,611	1,860	614	384	169	180	1,685	6,503
In Polynesia	298	134	12	34	2	19	105	604
Other British Possessions	4,929	4,986	2,066	1,538	759	667	3,409	18,354
Austria-Hungary	588	586	247	185	29	20	564	2,219
Belgium	181	235	35	51	4	12	115	633
Denmark	1,488	1,399	3,072	276	41	137	2,053	8,466
France	2,270	1,307	411	400	72	77	711	5,248
Germany	9,565	10,775	14,924	8,553	290	918	4,663	49,688
Italy	1,477	1,717	439	186	36	36	397	4,288
Netherlands	284	366	67	82	19	12	143	973
Portugal	249	168	41	17	10	27	205	717
Russia	1,176	1,172	311	189	71	38	419	3,376
Spain	138	227	93	29	89	17	76	669
Sweden and Norway	3,397	3,214	1,956	1,157	204	194	2,702	12,824
Switzerland	594	1,317	469	142	15	18	362	2,917
United States of America	3,379	2,905	943	386	154	221	1,683	9,671
China	13,157	8,467	8,554	3,997	914	943	4,470	40,502
Specified foreign countries	37,943	33,855	31,562	15,650	1,948	2,670	18,563	142,191
At sea	1,960	1,973	832	601	114	170	1,295	6,945
All others and unspecified	4,019	10,075	11,546	1,803	1,364	990	1,898	31,695
Total	1,123,954	1,139,840	393,718	320,431	49,782	146,667	626,658	3,801,050

Preponderance of Australasian-born.

A glance at the preceding table shows at once that natives of the Australasian Colonies form fully two-thirds of the population, and that the great majority of the Australasian-born population were natives of the particular Colony in which they were enumerated. The proportion per cent. of the people born in the Colony in which they were resident at the time of the census, of those born in any of the other six Australasian Colonies, and of the total Australasian-born population to the total population of each Colony are shown below :—

Colony.	Percentage to Total Population of—		
	Natives of Colony of Enumeration.	Natives of other Colonies.	Australasian-born Population.
New South Wales	64·51	7·47	71·98
Victoria	62·56	6·75	69·31
Queensland	44·95	7·14	52·09
South Australia	67·95	3·45	71·40
Western Australia	55·89	6·53	62·42
Tasmania	73·57	4·97	78·54
New Zealand	58·52	2·54	61·06
Average for Australasia	61·44	5·96	67·40

These figures show that proportionately the largest Australasian-born population is to be found in Tasmania, where more than 73 out of every 100 of the inhabitants were born in the Colony, and over 78 per cent. were Australasians. In Queensland, on the contrary, very nearly half the population were natives of countries outside of the Seven Colonies, and only 45 per cent. were Queenslanders by birth. The low proportion of native-born in the Colony in question is no doubt accounted for by the comparatively recent settlement of much of the territory, and the encouragement given to immigrants from the United Kingdom and the Continent of Europe. It will be noticed that New South Wales has proved the most attractive of all the Provinces to those born in other parts of Australasia, while New Zealand, from its isolated position and greater distance, has drawn to itself the least proportion of Australasian natives. The following figures set forth still more

clearly the extent to which each Colony is indebted for population to its neighbours :—

Colony.	Number of Natives of other six Colonies enumerated.	Number of Natives enumerated in other six Colonies.	Gain to Colony.	Loss to Colony.
New South Wales...	83,987	43,520	40,467	.....
Victoria	76,996	69,021	7,975	.....
Queensland	28,112	14,206	13,912	.....
South Australia... ..	11,045	47,292	.....	36,247
Western Australia..	3,250	2,013	1,237	.....
Tasmania	7,294	26,711	.....	19,417
New Zealand	15,943	23,870	.....	7,927

Australasians in other provinces than where born.

In New South Wales, it will be seen, there were 83,987 natives of the other Colonies, while only 43,520 natives of New South Wales had made their homes in other parts of Australasia, the result being a net gain of 40,467 persons, a very considerable proportion, seeing that several of the other provinces were originally colonised from New South Wales. On the other hand, South Australia showed a loss of 36,247 from intercolonial movements of population; Tasmania lost 19,417, and New Zealand 7,927. The natives of other parts of Australasia resident in Victoria very nearly balanced the number of Victorians resident in other provinces, the excess in favour of the Colony in question being under 8,000. Queensland gained 13,912 from the other colonies, and Western Australia 1,237 persons.

Natives of the United Kingdom.

Next to the Australasian-born population, natives of the United Kingdom are by far the most numerous class in each Colony. The following table shows the percentages to the total population of each Colony of natives of England and Wales, Scotland, and Ireland :—

Colony.	Natives of—			
	England and Wales.	Scotland.	Ireland.	United Kingdom.
New South Wales.....	13·71	3·28	6·68	23·67
Victoria	14·29	4·45	7·48	26·22
Queensland	19·60	5·69	10·93	36·22
South Australia.....	15·24	2·77	4·48	22·49
Western Australia	19·71	2·43	7·03	29·17
Tasmania	11·89	2·62	3·88	18·39
New Zealand	19·04	8·28	7·60	34·92
Australasia	15·51	4·62	7·23	27·36

It was to be expected that the percentage of natives of the United Kingdom would be highest in those Colonies which have introduced a large number of assisted immigrants during the last twenty years, as Queensland and New Zealand, in which Colonies the percentage of the native-born population is comparatively low. If the composition of the population of the United Kingdom be taken into consideration, it will be seen that Scotch and Irish colonists are much more numerous in proportion than those of English birth. The distribution of natives of the three kingdoms is very unequal in the different Colonies; while natives of England are more numerous in proportion to natives of Scotland and Ireland in South Australia, Western Australia, and Tasmania, Scotchmen are proportionately most numerous in New Zealand, and Irishmen in Queensland.

The number of natives of parts of the British Empire other than the United Kingdom and the Australasian Colonies enumerated in the latter was very small, amounting only to the following percentages of the total population :—In New South Wales, 0·44; in Victoria, 0·44; in Queensland, 0·53; in South Australia, 0·48; in Western Australia, 1·53; in Tasmania, 0·45; and in New Zealand, 0·54; average in Australasia, 0·48. Natives of Canada, the West and East Indies, make up the bulk of this class, which numbered only 18,354 in the whole of Australasia. It is not possible to give a complete tabulation of natives of foreign countries, as in some of the Colonies no other country is mentioned but those shown in the table given, the rest of the foreign-born population being bracketed together as natives of other foreign countries. Immigrants from Germany appear to be most numerous, then follow natives of China, Sweden and Norway, the United States, Denmark, France, Italy, Russia, Switzerland, Austria-Hungary, the Netherlands, Portugal, Spain, and Belgium. Of countries not shown in the table, Greece and Asiatic Turkey would appear to have contributed most, though Polynesians are numerous in Queensland. The percentage to the total population of each Colony of natives of Germany and of the Scandinavian

Proportion of foreign-born.

Kingdoms (Sweden and Norway, and Denmark), as well as of the total foreign-born population, is shown in the subjoined table :—

Colony.	Percentage of—		
	Germans.	Scandinavians.	Total Foreign-born Population.
New South Wales	0·85	0·43	3·38
Victoria	0·95	0·40	2·98
Queensland	3·79	1·28	8·02
South Australia	2·67	0·45	4·88
Western Australia	0·58	0·49	3·91
Tasmania	0·63	0·23	1·82
New Zealand	0·74	0·76	2·97
Australasia	1·31	0·56	3·74

It will be seen that both Germans and Scandinavians are proportionately most numerous in Queensland, where together they amount to more than 5 per cent. of the population. Germans are also very numerous in South Australia, and Scandinavians in New Zealand.

The number of natives of China given in the table at page 164 does not agree with the number of Chinese shown in the table at page 160, where Chinese half-castes born in Australasia are included.

The remainder of the population is made up of those born at sea and those unspecified. The proportion of each class to the total population of each Colony is shown below :—

Colony.	Percentage of—	
	Born at Sea.	Unspecified.
New South Wales	0·17	0·36
Victoria	0·17	0·88
Queensland	0·21	2·93
South Australia	0·19	0·56
Western Australia	0·23	2·74
Tasmania	0·12	0·68
New Zealand	0·21	0·30
Australasia	0·18	0·84

From the returns of those Colonies where the people born at sea have been distinguished into those born of British and of foreign parentage respectively, it appears that the great bulk of them were of British parentage.

Birth-places unspecified.

The column headed "unspecified" comprises, in addition to those given as unspecified in the tabulations of the different Colonies, the natives of such foreign countries as were not specified in the table previously given. The proportions shown for Queensland and Western Australia are considerably larger than those of the other Colonies, owing to the fact that in Queensland the large number of Polynesians mentioned in a previous paragraph, is included; while in Western Australia, people engaged in the pearl fisheries, who were returned as natives of Malaysia, have been reckoned. The small number of persons who in some of the Colonies were returned as natives of "Australasia" (Colony unspecified), is also enumerated under this head.

CONJUGAL CONDITION.

Divorced not enumerated.

At the Hobart Census Conference it had been decided to tabulate the conjugal condition of the people under the heads of "Never married," "Married," "Widowed," and "Divorced." This decision was, however, only adhered to by New South Wales and Tasmania, while the reports of the other Colonies do not distinguish the divorced, who are, no doubt, included under the heading of unmarried. For the sake of comparison a similar classification has, therefore, been made in the tabulation of New South Wales and Tasmania. The people who returned themselves as "divorced" on the census schedules of New South Wales, numbered 178 males and 126 females—total, 304; and in Tasmania 25 males and 6 females—total, 31. Considering that during the five years preceding the taking of the Census, 171 decrees for the dissolution of marriage had been granted in New South Wales, it is reasonable to assume that the figures quoted understate the truth, no doubt owing to the reluctance on the part of many

people living in a state of divorce to return themselves as "divorced" in the census schedules.

The following table shows the number of unmarried, married, and widowed people in each Colony, those whose conjugal condition was unspecified on the schedules having been proportionately distributed :—

Conjugal Condition.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.	Australasia.
MALES—								
Unmarried	424,464	408,566	161,308	114,066	21,648	52,630	234,315	1,416,997
Married	166,634	170,954	57,963	48,932	7,266	22,488	90,754	564,991
Widowed	16,905	18,569	4,508	3,803	893	2,442	7,808	54,928
Total	608,003	598,089	223,779	166,801	29,807	77,560	332,877	2,036,916
FEMALES—								
Unmarried	324,504	335,098	105,632	96,891	12,706	43,755	190,758	1,109,344
Married	165,648	173,749	57,610	48,295	6,383	21,406	90,919	564,010
Widowed	25,799	32,904	6,697	8,444	886	3,946	12,104	90,780
Total	515,951	541,751	169,939	153,630	19,975	69,107	293,781	1,764,134
MALES AND FEMALES—								
Unmarried	748,968	743,664	266,940	210,957	34,354	96,385	425,073	2,526,341
Married	332,282	344,703	115,573	97,227	13,649	43,894	181,673	1,129,001
Widowed	42,704	51,473	11,205	12,247	1,779	6,388	19,912	145,708
Total	1,123,954	1,139,840	393,718	320,431	49,782	146,667	626,658	3,801,050

Excess of unmarried males.

From the foregoing figures it will be seen that unmarried males are largely in excess of unmarried females in each Colony. The numbers for each Colony and the percentages of unmarried females to unmarried males in each Colony are shown in the following table :—

Colony.	Excess of Unmarried Males over Unmarried Females.	Percentage of Unmarried Females to Unmarried Males.
New South Wales	99,960	76·45
Victoria	73,468	82·02
Queensland	55,676	65·48
South Australia	17,175	84·94
Western Australia	8,942	58·69
Tasmania	8,875	83·14
New Zealand	43,557	81·41
Australasia	307,653	78·29

The percentage is particularly low in those Colonies which have attracted much population from the other Colonies, as New South Wales, Queensland, and Western Australia; while it is near the average in Victoria and New Zealand, which have neither gained nor lost population to any great extent; and it is considerably above the average in South Australia and Tasmania, whence a great amount of emigration to the other Colonies has taken place. This fact favours the supposition that the emigrants have chiefly been young unmarried males attracted to the other Colonies by the hope of bettering their condition.

The numbers of married males and females are fairly equal in all the Colonies, the males preponderating everywhere, except in Victoria and New Zealand; there must, therefore, have been an emigration of married males from those two provinces.

Widows outnumber widowers.

Amongst the widowed females largely outnumber males, as was to be expected from the higher death-rate and the proportionately larger number of males re-married. Western Australia, however, shows a slight excess of widowers over widows. The following table shows for each Colony the proportion of unmarried, married, and widowed males to total males, of unmarried, married, and widowed females to total females, and of unmarried, married, and widowed persons to total population :—

Percentage of—		New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.	Australasia.
Males	Unmarried	69·81	68·31	72·08	68·38	72·63	67·86	70·39	69·57
	Married	27·41	28·58	25·90	29·34	24·38	28·99	27·26	27·74
	Widowed	2·78	3·11	2·02	2·28	2·99	3·15	2·35	2·69
Females	Unmarried	62·89	61·86	62·16	63·07	63·61	63·31	64·93	62·88
	Married	32·11	32·07	33·90	31·44	31·95	30·98	30·95	31·97
	Widowed	5·00	6·07	3·94	5·49	4·44	5·71	4·12	5·15
Males and Females.	Unmarried	66·64	65·24	67·80	65·84	69·01	65·72	67·83	66·46
	Married	29·56	30·24	29·35	30·34	27·42	29·93	28·99	29·70
	Widowed	3·80	4·52	2·85	3·82	3·57	4·35	3·18	3·84

SICKNESS AND INFIRMITY.

Returns in some cases unsatisfactory.

Inquiries were made in the census schedules respecting the number of persons suffering from sickness and infirmity, but there is reason to believe that in at least some of the Colonies the way in which the column was filled in was unsatisfactory. The figures for New South Wales and Victoria may be compared throughout, as the classification adopted was practically the same, and to a certain extent this holds also good of the Western Australian and Tasmanian figures. The returns for Queensland are made in a somewhat indefinite way, and in New Zealand half the number of persons returned as sick and infirm includes all ages, while the other half only includes the population of 15 years and over. Returns from South Australia have not yet been received. The following table shows the results of the tabulation for the other six colonies :—

Sickness and Infirmity.	New South Wales.	Victoria.	Queensland.	Western Australia.	Tasmania.	New Zealand
Sickness—						
Paralysis	851	1,097	*	*	*	468
Epilepsy	339	420	*	18	37	232
Leprosy	15	3	*	*	*	*
Other and undefined	10,117	13,127	*	487	2,579	†4,404
Total	11,322	14,647	2,969	505	2,616	5,104
Accidents	1,459	1,668	777	62	152	‡679
Deaf and dumb	383	364	154	11	54	166
Dumb only	9	*	*	*	*	*
Deaf only	1,348	627	*	*	*	268
Blindness	741	995	199	54	165	274
Lunacy	3,129	3,770	1,104	129	383	1,798
Idiocy	286	355	*	7	46	128
Crippled	1,775	346	*	*	*	979
Lost a limb	635	754	*	35	*	*
Lost sight of an eye	1,164	1,157	*	79	*	*
Total	22,251	24,683	5,203	882	3,416	9,396

* Included under more general heading. † Of this figure, 4,130 persons refer to the population over 15 years only, while 274 persons refer to the whole population. ‡ Population over 15 years only.

HABITATIONS.

Dwellings of the people.

At the Census of 1891, inquiry was made on the householders' schedules respecting the dwellings of the population. The questions to be answered were whether a building was occupied, unoccupied, or in course of construction, the material of which it was built, and the number of rooms it contained. The tabulation has not been made with the same degree of completeness in all the Colonies; but as far as comparative figures can be given they are shown below. The number of occupied and unoccupied houses, &c., was as follows:—

Number of Dwellings.	New South Wales.	Victoria	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.
Occupied	216,219	217,895	78,429	....	10,221	26,585	119,766
Unoccupied	16,606	15,846	2,224	....	236	1,588	9,558
Being built	1,257	1,693	44	....	73	189	425
Stores, offices, and public buildings	7,514	264	*	....	*	244	*
Inhabited huts and dwellings with canvas roofs	*	5,862	*	....	*	1,195	4,085
Total number of dwellings	241,596	241,560	80,697	63,887	10,530	29,801	133,834

* Included under more general heading.

Materials used in construction

The materials of which the dwellings were constructed in each Colony is shown in the following table, as far as the particulars are available:—

Material.	New South Wales.	Victoria	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand
Brick or stone	90,411	69,545	....	....	6,087	8,452	5,697
Wood, iron, or lath and plaster.	130,031	154,843	....	....	2,388	19,231	116,801
Slabs, bark, mud, &c	*	4,841	....	....	306	595	4,286
Canvas, linen, calico, &c.	18,795	5,858	....	....	1,552	1,214	4,085
Other materials	....	....	....	....	3	....	1,551
Unspecified materials	2,359	6,473	....	....	194	309	1,414
Total	241,596	241,650	80,697	63,887	10,530	29,801	133,834

* Included in previous line.

Number of rooms.

The number of rooms is given for all houses, whether occupied or unoccupied, except in the case of New South Wales and New Zealand, where the figures given refer only to occupied dwellings :—

Dwellings, with—	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand
One room	24,887	28,497	....	....	2,075	2,469	11,528
Two rooms.....	16,146		....	....	1,612	4,092	11,030
Three and four rooms ..	65,934	156,976	....	....	2,855	11,627	41,934
Five and six rooms.....	64,377		....	....	1,440	5,880	32,868
Seven to ten rooms.....	32,346	36,944	....	....	1,856	5,413	24,968
Eleven to fifteen rooms..	7,419	7,061	....	....	318		
Sixteen to twenty rooms	1,941	1,673	....	....	92		
More than twenty rooms	1,216	1,226	....	....	47		
Number of rooms unspecified.	1,953	9,183	....	....	235	320	1,523
Total No. of dwellings	216,219	241,560	80,697	63,887	10,530	29,801	123,851

In Queensland the habitations were enumerated under the Quinquennial Census Act, which does not provide for a statement either of the materials from which houses are constructed or of the number of rooms they contain. The only return yet available for South Australia is that of the total number of houses. Leaving that Colony out of the calculation, in the rest of Australasia there are nearly $5\frac{1}{4}$ persons to every occupied house.

AGRICULTURE.

AUSTRALASIA may, as a whole, be considered as in the first phase of agricultural settlement, indeed several Colonies have not yet emerged from the pastoral stage. Nevertheless, the value of agricultural produce, estimated at farm prices, is considerable, and amounts to £22,506,080, which is about two-thirds the value of the pastoral produce. The return from agriculture in each Colony for the season 1891–92 was, approximately :— Value of agricultural products.

	Total value of Crops.	Average value of produce per acre under Crop.	Percentage of value to total value of Australasia.
	£	£ s. d.	
New South Wales	3,584,490	4 4 7	15·9
Victoria	7,009,097	3 6 3	31·1
Queensland	1,922,044	7 18 5	8·6
South Australia	3,045,247	1 11 7	13·5
Western Australia	380,921	5 18 8	1·7
Tasmania	1,046,263	6 5 0	4·7
New Zealand	5,518,018	3 17 5	24·5
Australasia	22,506,080	3 6 3	100·0

From this estimate it would seem that the value of crops, per acre cultivated, is much larger in Queensland and Tasmania than in the other Colonies, which, in the case of Queensland, is due to the proportionately large area under sugar-cane, while in Tasmania the area devoted to fruit and hops, and the higher returns of cereals, account for the average per acre which the province shows. In point of gross value Victoria occupies a position much in advance of the other members of the group, the produce of that province having a value little short of one-third of that of Value in different Colonies.

Value of principal crops.

all Australasia. The value of the principal crops, and the percentage of each to the total production, are given in the following statement :—

Name of Crop.	Value.	Percentage to Total.
	£	
Wheat	7,154,928	31·8
Maize	1,153,599	5·1
Barley	265,725	1·2
Oats	1,485,420	6·6
Other grain	248,093	1·1
Hay	4,551,462	20·2
Potatoes	1,252,662	5·6
Other root-crops	843,883	3·8
Sugar-cane	928,637	4·1
Tobacco	35,810	0·2
Grapes for wine, table, and other purposes	820,113	3·6
Green forage	301,896	1·3
Hops	87,118	0·4
Orchards and market-gardens	3,076,326	13·7
Other crops	300,405	1·3
Total	22,506,080	100·0

Value of produce per head.

The average value of agricultural produce per head of the population in each of the Australasian colonies during the season 1891–2, is represented by the figures below which also illustrate the fact that in the colonies of South Australia, New Zealand, Tasmania, and Victoria, the development of agricultural resources is attracting the attention of the colonists to a greater extent than is the case in the other provinces of Australasia.

Colony.	Average value per head of population.
	£ s. d.
New South Wales	3 1 6
Victoria	6 1 1
Queensland	4 13 8
South Australia	9 6 11
Western Australia	7 3 0
Tasmania	6 17 1
New Zealand	8 14 1
Australasia	5 15 5

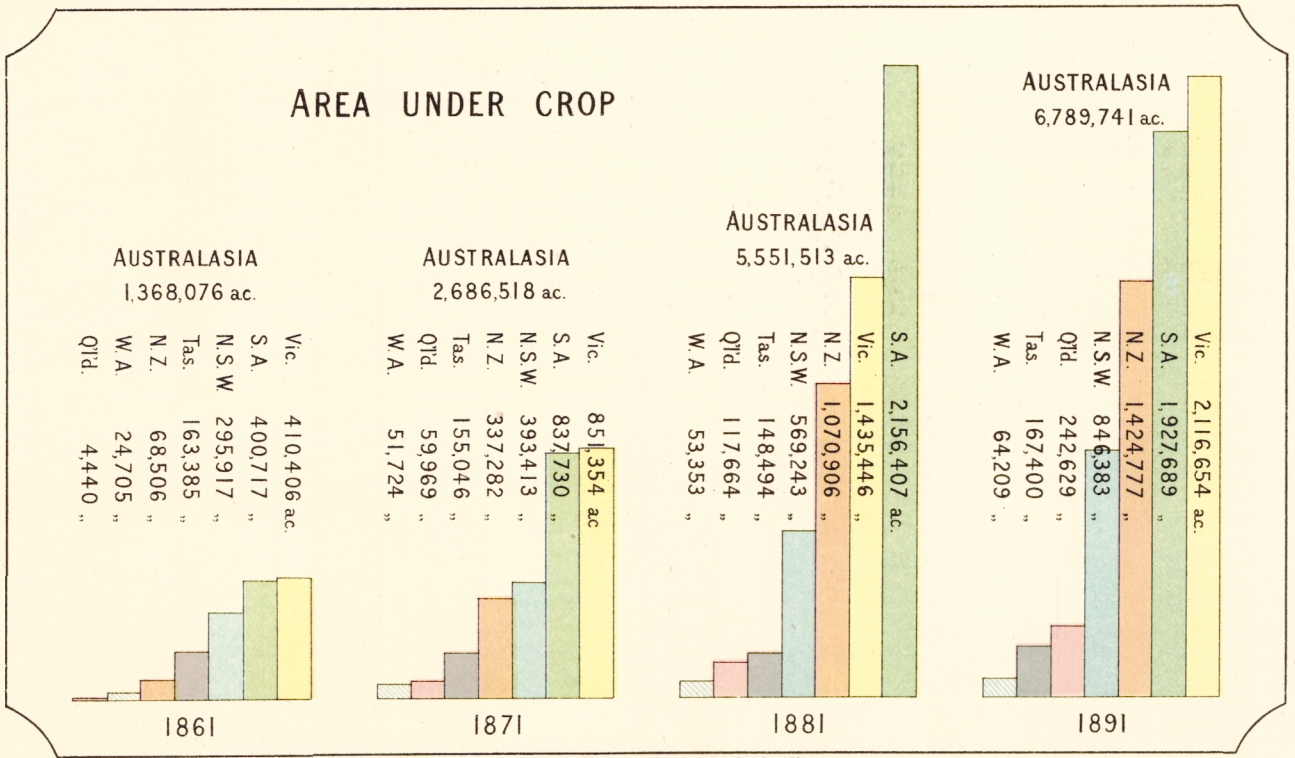
Compared with the principal countries of the world Australasia does not take a high position in regard to the gross value of the produce of its tillage, but in value per inhabitant it compares fairly well; indeed some of the Colonies, such as South Australia and New Zealand show an average equalling that of Denmark and France. The following figures, designed to illustrate this, are taken from various places in Mulhall's latest issue of the *Dictionary of Statistics*:— Value of crops in other countries.

Countries.	Value.	Per head.
	Million £	£
United Kingdom	141	3·3
France	322	8·3
Germany	262	5·4
Russia	373	4·0
Austria	225	5·6
Italy	153	5·0
Spain	126	7·1
Portugal	23	4·9
Sweden	31	6·5
Norway	9	4·5
Denmark	20	9·5
Holland	20	4·3
Belgium	41	6·7
Switzerland	9	3·0
United States	467	7·5
Canada	35	7·0
Cape Colony	2	1·3
Argentina	18	5·8
Uruguay	2	3·3
Australasia (1891)	24	5·8

The following figures, giving the areas under the principal grain and other crops, and the total extent of land under cultivation in each of the Colonies at different epochs since the year 1861, will serve to illustrate the progress agriculture has made. In this table, as well as throughout the whole of the chapter, the years 1861, '71, '81, and '91 embrace the periods from 1st April in those years to the 31st March subsequently. Area under cultivation in Australasia, 1861-91. Agricultural year.

Colony.	Year.	Area under								Total Area under Crops.	Land under Permanent Artificial Grasses.
		For Grain.				Potatoes.	Vines.	Hay.	Other Crops.		
		Wheat.	Oats.	Maize.	Barley.						
		Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
New South Wales ...	1861	123,468	7,224	57,959	2,924	10,040	1,692	45,175	47,435	295,917	1,658
	1871	154,030	13,795	119,956	3,461	14,770	6,618	51,805	28,978	393,413	24,388
	1881	221,888	16,348	117,478	6,427	15,943	6,624	146,610	37,925	569,243	75,825
	1891	356,666	12,958	174,577	4,459	22,560	8,281	163,863	103,019	846,383	333,238
Victoria.....	1861	196,922	91,061	1,714	3,419	27,174	1,464	74,681	13,971	410,406	12,654
	1871	334,609	175,944	1,709	16,772	39,064	5,523	103,206	174,527	851,354	6,282
	1881	926,729	146,995	1,783	48,652	39,129	4,923	212,150	55,085	1,435,446	241,947
	1891	1,332,683	190,157	8,230	45,021	57,334	24,483	369,498	89,248	2,116,654	174,982
Queensland ..	1861	392	69	1,914	13	512	40	280	1,220	4,440	.....
	1871	3,024	131	20,329	971	3,121	568	3,828	27,997	59,969	838
	1881	10,958	88	46,480	256	5,086	1,212	16,926	36,658	117,664	8,565
	1891	19,306	715	101,598	739	9,173	1,988	30,655	78,455	242,629	20,921
South Australia ..	1861	310,636	1,638	18	10,637	2,612	3,918	62,874	8,384	400,717	838
	1871	692,508	3,586	.....	17,225	3,156	5,455	97,812	17,988	837,730	5,213
	1881	1,768,781	3,023	.....	11,953	6,136	4,202	333,467	28,845	2,156,407	16,438
	1891	1,552,423	12,637	.....	11,461	6,892	12,314	304,171	17,811	1,927,689	17,519

AREA UNDER CROP



Printed at the Department of Lands, Sydney, N. S. W. 1893
N° of Lithograph D.33.3

Colony.	Year.	Area under. For Grain. Wheat.	Oats.	Maize.	Barley.	Potatoes.	Vines.	Hay.	Other Crops.	Total Area under Crops.	Land under Permanent Artificial Grasses.
		Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Western Australia	1861	13,584	507	73	2,412	277	457	6,676	719	24,705	.....
	1871	25,697	1,474	113	5,083	494	692	.....	18,171	51,724	.....
	1881	21,951	827	36	3,679	278	527	24,445	1,610	53,353	.....
	1891	26,866	1,301	23	3,738	532	1,004	28,534	2,211	64,209	.....
Tasmania	1861	58,823	29,022	.....	7,279	9,349	.....	31,803	27,109	163,385	.....
	1871	63,332	29,631	.....	4,275	8,154	... ..	31,578	18,076	155,046	90,247
	1881	51,757	27,535	.....	4,597	9,670	.....	34,790	20,145	148,494	136,321
	1891	47,217	28,242	.....	2,644	16,368	.....	45,338	27,591	167,400	208,481
New Zealand	1861	29,531	15,872	770	3,457	7,292	.....	.....	11,584	68,506	157,994
	1871	108,720	139,185	.....	13,305	11,933	.....	30,717	33,422	337,282	792,529
	1881	365,715	243,387	3,177	29,808	22,540	.....	68,423	337,856	1,070,906	3,869,646
	1891	402,273	323,508	5,447	24,268	27,266	.....	145,728	496,287	1,424,777	7,403,881
Australasia ..	1861	733,356	145,393	62,448	30,141	57,256	7,571	221,489	110,422	1,368,076	173,144
	1871	1,381,920	363,746	142,107	61,092	80,692	18,856	318,946	319,159	2,686,518	929,497
	1881	3,367,779	438,203	168,954	105,372	98,782	17,488	836,811	518,124	5,551,513	4,348,742
	1891	3,737,434	569,518	289,875	92,330	140,125	48,070	1,087,787	824,602	6,789,741	8,159,022

Great increase of area under crop.

The following table indicates the increase in area and the proportional yearly increase of cultivation in each Colony during the period of 30 years under review :—

Colony.	Increase in acreage from 1861 to 1891.	Rates of increase in acreage per annum.
	Acres.	Per cent.
New South Wales	550,466	3·6
Victoria	1,706,248	5·5
Queensland	238,189	13·4
South Australia	1,526,972	5·3
Western Australia	39,504	3·2
Tasmania	4,015	0·1
New Zealand	1,356,271	10·1
Australasia	5,421,665	5·3

Thus, although the provinces of Victoria, South Australia, New Zealand, and New South Wales have, during this period, provided the largest increase in the area of land cultivated, Queensland shows a much greater proportional increase, whilst agriculture in Tasmania has remained almost stationary. Considering the Colonies as a whole it will be seen that the area under crop in Australasia is now little less than five times as large as it was in 1861. If, however, the land artificially grassed be included the total is 14,948,763 acres, or more than nine and a half times the area under cultivation in 1861. A comparison with the increase of population may perhaps best serve to give an idea of the progress of agriculture. The following table gives the acreage under crop per inhabitant :—

Increase per head of the people.

Colony.	1861.	1871.	1881.	1891.
	Acres.	Acres.	Acres.	Acres.
New South Wales	0·8	0·8	0·7	0·7
Victoria	0·8	1·1	1·7	1·8
Queensland	0·1	0·5	0·5	0·6
South Australia	3·2	4·5	7·5	5·9
Western Australia	1·6	2·0	1·8	1·2
Tasmania	1·8	1·5	1·2	1·1
New Zealand	0·7	1·3	2·1	2·2
Australasia	1·1	1·4	2·0	1·7

Area under crop compared with population.

The increase of agriculture, for the whole of Australasia, as compared with that of population, will be clearly seen in the following table, which shows their relative growth for each period :—

	1861–1871.	1871–1881.	1881–1891.	Whole period 1861–1891.
	Per cent.	Per cent.	Per cent.	Per cent.
Increase of acreage under crop	96·4	106·6	22·3	396·2
Increase of population...	55·6	43·2	38·1	208·0

During the period covered by the table the population of Australasia was more than trebled, but the breadth of land devoted to agriculture increased to nearly five-fold, so that the ratio of increase of agriculture was one and three-quarters that of the population. This improvement took place entirely during the period from 1861 to 1881, and chiefly during the latter portion of that time; while in the years from 1881 to 1891 the rate of increase in the acreage under crops fell far short of the increase of the population. This is what naturally might be expected, as the gold fever had altogether subsided about the end of the first period, 1861–71, and a large portion of the population was seeking employment of a more settled nature than was afforded by the gold-fields. The comparative decrease noticeable in the latter period, 1881–91, is owing to various causes, such as the general tendency, elsewhere alluded to, of the population to congregate in the several metropolitan centres, the difficulty of taking up good land within easy access to markets; and also to the fact that there have been large accessions to the numbers of those engaged in other callings, without a corresponding increase in the agricultural classes. Under any circumstances the area of land devoted to agriculture cannot be increased illimitably, and although enormous tracts of land adapted for tillage still remain untouched by the plough, it is not likely their cultivation will be attempted until a more certain market is assured for the produce.

Limit to increase of agriculture.

Proportion of areas under crop.

In the following table will be found the proportion of land under crop to the total area of each Colony, and to Australasia as a whole. In instituting comparisons between the several Colonies, however, it must be borne in mind that other circumstances than the mere area under cultivation require to be taken into consideration. It would not be fair, for instance, to compare Tasmania, with 5·6 persons per square mile, to Western Australia, which has only 0·05 inhabitant to the square mile. The table has a value chiefly because it shows how each province has progressed in regard to cultivation during the periods named :—

Colony.	1861.	1871.	1881.	1891.
	Per cent.	Per cent.	Per cent.	Per cent.
New South Wales	·15	·20	·29	·44
Victoria	·73	1·51	2·55	3·76
Queensland	·001	·01	·03	·06
South Australia	·07	·15	·37	·33
Western Australia	·004	·008	·009	·01
Tasmania	·97	·92	0·88	·99
New Zealand	·10	·50	1·60	2·13
Australasia	·07	·13	·27	·34

Proportion of land under various crops.

The subjoined table shows the proportion of cultivated area devoted to the principal crops in each province, as well as in the whole taken together. It will be seen that with two exceptions wheat and hay form the greater proportion of their tillage. This is especially the case in regard to South Australia, where little else is grown, and in Victoria the proportion of wheat amounts to 63 per cent. of the total area cultivated, while there is more than 17 per cent. under hay crops.

Percentage of tillage devoted to each of the principal crops.

Crops.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.	Australasia.
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
Wheat	42·1	62·9	7·9	80·5	41·8	28·2	28·2	55·0
Oats	1·5	9·0	0·3	0·7	2·0	16·9	22·7	8·4
Maize	20·6	0·4	41·9	.....	0·1	.....	0·4	4·3
Barley	0·5	2·1	0·3	0·6	5·8	1·6	1·7	1·4
Potatoes	2·7	2·7	3·8	0·4	0·8	9·8	1·9	2·0
Vines	1·0	1·2	0·8	0·6	1·6	.....	.....	0·7
Hay	19·4	17·5	12·6	15·8	44·4	27·0	10·2	16·0
Sugar-cane	2·6	.....	21·0	.....	.....	.....	.....	1·1
Other crops	9·6	4·2	11·4	1·4	3·5	16·5	34·9	11·1
Total.	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0

Relative proportion of principal crops.

The relative position of each of the principal agricultural products, in proportion to the total area under crop in Australasia since the year 1861, may be ascertained from the following table. The figures should, however, be used with the table on page 178, which gives the actual areas operated upon, since a decline in the proportion of land under any particular form of cultivation does not necessarily mean a falling off in the area devoted to it; on the contrary, in few instances has there been any actual retrogression. It will be satisfactory to observe that the proportion of cultivation of the more valuable crops is gradually increasing. Thus, in 1891, the percentage devoted to vines, sugar-cane, and "other crops," under which are included gardens and orchards, was 12·9, as against 9·6 in 1881 and 8·6 in 1861.

Product.	1861.	1871.	1881.	1891.
	Per cent.	Per cent.	Per cent.	Per cent.
Wheat	53·6	51·4	60·7	55·0
Oats	10·6	13·5	7·9	8·4
Maize	4·6	5·3	3·0	4·3
Barley	2·2	2·3	1·9	1·4
Potatoes	4·2	3·0	1·8	2·0
Vines	0·5	0·7	0·3	0·7
Hay	16·2	11·9	15·1	16·0
Sugar-cane	.....	0.5	0.7	1·1
Other crops	8·1	11·4	8·6	11·1
Total	100·0	100·0	100·0	100·0

WHEAT.

Wheat-producing Colonies.

Only three of the seven Colonies of Australasia—Victoria, South Australia, and New Zealand—produce sufficient wheat for their own requirements; but after the deficiencies of the rest of Australasia are supplied by them, there is, in most seasons, a large balance for export, which finds a ready market in Great Britain, where Australian wheat is well and favourably known.

The amount of wheat exported, the produce of each of these Colonies, to countries outside Australasia, during 1891, was

10,838,996 bushels, valued at £2,133,909, of which 8,306,987 bushels, or over 76 per cent., were despatched to Great Britain.

The subjoined table shows the progress of wheat-growing for 31 years :— Progress of wheat-growing.

Colony.	1861.	1871.	1881.	1891.
	Acres.	Acres.	Acres.	Acres.
New South Wales	123,468	154,030	221,888	356,666
Victoria	196,922	334,609	926,729	1,332,683
Queensland	392	3,024	10,958	19,306
South Australia	310,636	692,508	1,768,781	1,552,423
Western Australia	13,584	25,697	21,951	26,866
Tasmania	58,823	63,332	51,757	47,217
New Zealand	29,531	108,720	365,715	402,273
Australasia	733,356	1,381,920	3,367,779	3,737,434

The production during the same period was :—

Colony.	1861.	1871.	1881.	1891.
	Bushels.	Bushels.	Bushels.	Bushels.
New South Wales	1,606,034	2,229,642	3,405,966	3,963,668
Victoria	3,607,727	4,500,795	8,714,377	13,629,370
Queensland	5,880	36,288	39,612	392,309
South Australia	3,410,756	3,967,079	8,087,032	6,436,488
Western Australia	160,155	345,368	153,657	288,810
Tasmania	1,380,913	847,962	977,365	930,841
New Zealand	772,531	2,448,203	8,297,890	10,257,738
Australasia	10,943,996	14,375,337	29,675,899	35,899,224

The production of wheat per acre varies from 6 bushels in South Australia to 24·8 bushels in New Zealand, the average for the whole of Australasia being a little short of 10 bushels. In the Yield of wheat per acre.

following statement is given the average yield for each province during the 10 years which closed with 1891 :—

Colony.	Average for the ten years, 1882-91.
	Bushels.
New South Wales	12·9
Victoria	10·2
Queensland	12·9
South Australia	6·0
Western Australia	12·1
Tasmania	18·1
New Zealand	24·8
Australasia	9·8

Small average yield per acre.

A yield of 10 bushels per acre is certainly small compared with the average obtained in European countries, but a bare statement of averages may mislead. Thus, in South Australia it is found that, owing to favourable conditions of culture, a yield of 7 bushels is financially as satisfactory a crop as one of 15 bushels in New South Wales, or 20 bushels in New Zealand. These averages, however, are susceptible of being much increased if cultivation were to be adopted in the colonies of a more scientific character. As a rule the seed is simply put into the ground, and little is done to assist the natural growth of the crops.

Wheat produced by each Colony.

The proportion of wheat produced by each province, compared with the total Australasian production in 1881 and 1891, is exemplified in the following figures :—

Colony.	1881.	1891.
	Per cent.	Per cent.
New South Wales	11·5	11·0
Victoria	29·4	38·0
Queensland	0·1	1·1
South Australia	27·2	17·9
Western Australia	0·5	·8
Tasmania	3·3	2·6
New Zealand	28·0	28·6
Australasia	100·0	100·0

Victoria takes the lead among the seven Colonies with regard to to the production of wheat, having to its credit more than one-third of the total yield. New Zealand comes next with 28·6 per cent. of the total production, and South Australia, though in 1881 it provided 27·2 per cent., and in 1890, 28·6 per cent., of the wheat grown in Australasia shows a decline in the percentage to 17·9, while New South Wales is about stationary for the two periods Tasmania, in 1881, produced wheat to the extent of 3·3 of the total Australasian production, and was able to export a trifling quantity, but in 1891 that Colony only produced 2·6 per cent., and had to import wheat and flour to the amount of 224,947 bushels.

Yield of wheat in other countries.

Compared with most European countries, and with North America, the yield of wheat in Australasia is inconsiderable, both in regard to the total quantity obtained, and the produce per acre. Thus, in the United Kingdom the average yield for the last five years was 28·5. In the United States the average was 11·9 bushels; the average for Manitoba during the same time was 18·4 bushels, and for Ontario 16·5 bushels, as against the Australasian yield of 9·8 bushels. With regard to other European countries the averages for the last available five-year periods are—Holland, 27·6 bushels; Germany, 18 bushels; France, 17·1 bushels; Hungary, 15·3 bushels; and Russia (excluding Poland), 7·4 bushels.

The following table shows the net imports or exports of wheat and flour of each of the colonies during 1891, flour being stated in terms of wheat, on the assumption of 1 ton of flour being equal to 48 bushels:—

Colony.	Net Imports.	Net Exports.
	Bushels.	Bushels.
New South Wales	3,038,181	.....
Victoria	.....	6,666,002
Queensland	1,863,694	.....
South Australia	.....	9,177,355
Western Australia	97,172	.....
Tasmania	224,947	.....
New Zealand	.....	1,624,758
Net exports	.....	12,244,121

Wheat trade of the world.

According to a statement made under the authority of the Statistician of the Department of Agriculture, Washington, U.S.A., Australasia ranks fifth on the list of the wheat exporting countries. Nevertheless the present contribution to the markets of Europe does not amount to more than one-twentieth of the demand, so that these Colonies cannot be said to form, as yet, a considerable factor in the wheat trade of the world.

The figures contained in the statement herewith represent for the most part an average for several years :—

Importing Countries.	Net Imports.	Exporting Countries.	Net Exports.
	Bushels.		Bushels.
Belgium	19,170,059	Austria-Hungary	5,846,800
France	37,426,407	Bulgaria	5,690,996
Germany	18,767,319	Roumania	19,200,979
Greece	8,975,790	Russia	83,170,011
Italy	19,931,234	Servia	2,236,912
Norway and Sweden	1,909,362	India	30,946,842
Netherlands	8,591,639	United States	83,343,864
Portugal	3,663,852	Argentine Republic	3,747,733
Spain	6,111,449	Canada	2,416,821
Switzerland	10,867,766	Chili	3,924,346
United Kingdom	105,527,648	Australasia	12,244,121
Total	240,942,525	Total	252,769,425

Yield and consumption of wheat in each Colony.

The following table shows the average annual yield and consumption of each Colony for the ten years ending with 1891, with the surplus or deficiency in each case :—

Colony.	Yield, less required for Seed.	Consumption.	Surplus available for Export.	Deficiency Imported.
	Bushels.	Bushels.	Bushels.	Bushels.
New South Wales	3,607,000	6,451,000	.....	2,844,000
Victoria	9,861,000	6,057,000	3,804,000	.....
Queensland	117,000	2,016,000	.....	1,899,000
South Australia	10,263,000	2,363,000	7,900,000	.....
Western Australia	299,000	453,000	.....	154,000
Tasmania	674,000	845,000	.....	171,000
New Zealand	7,539,000	4,730,000	2,809,000	.....
Australasia	32,360,000	22,915,000	9,445,000	.....

The acreage under wheat in 1891 in the various Colonies is compared below with that of 1881 :— Area under wheat, 1881 and 1891.

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.	Australasia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1891	356,666	1,332,683	19,306	1,552,423	26,866	47,217	402,273	3,737,434
1881	221,888	926,729	10,958	1,768,781	21,951	51,757	365,715	3,367,779
Increase	134,778	405,954	8,348	*216,358	4,915	*4,540	36,558	369,655

* Decrease.

From the above table it will be found that the extension of this cultivation has not been uniform, for, while South Australia and Tasmania have decreased their acreage, there has been a tendency in the other provinces to increase the area devoted to this cereal. Taking Australasia as a whole, however, the area under wheat in 1891 was only 369,655 acres in excess of that of 1881, notwithstanding that in Victoria and New South Wales, 540,732 acres were added to the breadth of land previously under this grain crop. As already pointed out the greater portion of the area devoted to agriculture is laid under wheat, and in an ordinary season the produce of over 1,200,000 acres is available for export to Europe. Whether the extension of wheat-growing for export, after supplying local demands, will be profitable is for the present a matter determined by the prices obtained in the London markets. But as far as present indications can be followed, it is hardly possible that any large expansion of this industry can be expected, unless perhaps in New South Wales, the only Colony of importance which, though adapted for wheat-growing, produces less than the requirements of its population. Extension of wheat culture not uniform.

In the subjoined table is given the value of the yield per acre for three of the Colonies estimated on the market rates ruling in February and March of each year. It will be seen that a considerable decline has taken place since 1883, due for the most part to the fall in prices rather than to any decrease of production. Value of yield per acre.

In regard to the value per acre the fall has been most marked in New South Wales :—

Year ending March.	Average. Yield in Bushels per acre. New South Wales.	Victoria.	South Australia.	Value of Yield per acre. New South Wales.	Victoria.	South Australia.
	Bushels.	Bushels.	Bushels.	£ s. d.	£ s. d.	£ s. d.
1883	16·3	9·0	4·2	4 4 3	2 2 9	1 1 6
1884	15·0	14·1	7·8	3 3 9	2 11 8	1 11 3
1885	15·5	9·5	7·5	2 18 2	1 11 8	1 5 4
1886	10·4	9·0	*	2 5 1	1 14 6	*
1887	17·4	11·5	*	3 8 2	2 3 2	*
1888	12·1	10·8	*	2 2 10	1 16 0	*
1889	4·8	7·1	*	1 2 10	1 12 6	*
1890	15·6	9·7	7·8	2 14 7	1 15 7	1 8 0
1891	10·9	11·1	5·6	2 0 10	1 19 9	0 19 7
1892	11·1	10·3	4·3	2 2 6	2 2 3	0 17 11

* No returns.

British market for wheat.

The United Kingdom is the largest importer of wheat, and the British demand largely influences the price throughout the world. The average rate per bushel in 1892 in London was 3s. 8d. In the latter months of 1892 the price of wheat fell as low as 2s. 9d. per bushel, which is said to be the lowest recorded for many years. The opening local prices at the beginning of 1893 showed but a slight upward tendency, from 2s. 11d. to 3s. 1d. only being offered to farmers ; so the Australian wheat crop of 1892–3, plentiful as it is, may not represent a total value much in advance of that realised in the season of 1891–2, which is shown below :—

Colony.	Value.
	£
New South Wales	759,703
Victoria	2,792,851
Queensland	73,558
South Australia	1,340,935
Western Australia	74,509
Tasmania	190,046
New Zealand	1,923,326
Australasia	7,154,928

The average London prices during the last decennial period were the following :— London prices for wheat.

Year.	Price.	Year.	Price.
	s. d.		s. d.
1883	5 2½	1888	4 0
1884	4 5½	1889	3 9
1885	4 1	1890	4 0
1886	3 10½	1891	4 7
1887	4 1	1892	3 8

The importance of Australasia as a producer of wheat is but small when compared with the great wheat-producing centres of the world. Out of 2,358,621,365 bushels produced in 1891, only 35,899,000 bushels, or 1·5 per cent., were of Australasian growth. The subjoined statement, based on the returns of the United States Department of Agriculture, except as regards Australasia, gives the approximate crop of the world for the year mentioned :— Relative importance of Australasian wheat. Wheat crop of the world.

Countries.	Bushels.	Countries.	Bushels.
Europe—		Asia—	
Austria	41,143,750	India	255,434,667
Hungary	126,268,750	Asia Minor	37,029,375
Belgium	14,187,500	Caucasus	74,269,440
Denmark	3,713,472	Persia	20,630,400
France	232,360,236	Syria	12,343,125
Germany	126,254,663	Africa—	
Great Britain	74,400,714	Algeria	21,281,250
Ireland	2,615,437	Egypt	11,140,416
Greece	5,675,000	Cape Colony	4,126,080
Italy	128,801,916	Tunis	4,256,250
Netherlands	3,713,472	North America—	
Portugal	8,252,160	United States	611,780,000
Roumania	53,073,684	Canada	61,592,822
Russia	181,789,628	South America—	
Servia	7,945,000	Argentine	33,069,000
Spain	71,349,094	Chili	14,187,500
Sweden	4,551,350		
Norway	412,608	Australasia	35,899,224
Switzerland	4,041,766		
Turkey	33,008,640	Total	2,358,621,365
Bulgaria	40,022,976		

Consumption of wheat.

The following figures show that the average consumption for Australasia is higher than that of any other part of the world for which records are available, with the exception of France:—

	Consumption per Head. (Bushels.)
United Kingdom	5·9
France	8·1
Germany	3·0
Russia	2·1
Austria	2·9
Italy	5·4
Spain and Portugal	6·4
Belgium and Holland	5·0
Scandinavia	1·4
Turkey	6·1
United States	5·0
Canada	6·5
Australasia	6·6

That of the Australasian Colonies will be found below:—

New South Wales	6·5
Victoria	6·0
Queensland	6·1
South Australia	6·5
Western Australia	9·3
Tasmania	6·7
New Zealand	7·5

The figures for Western Australia may appear abnormal, but are the result of a careful computation from the official returns for the last seven years.

OATS.

Cultivation of oats.

The cultivation of oats, coming next in importance to wheat as a grain crop, is increasing, as the following figures show:—

Colony.	1861.	1871.	1881.	1891.
	Acres.	Acres.	Acres.	Acres.
New South Wales	7,224	13,795	16,348	12,958
Victoria	91,061	175,944	146,995	190,157
Queensland	69	131	88	715
South Australia	1,638	3,586	3,023	12,637
Western Australia	507	1,474	827	1,301
Tasmania	29,022	29,631	27,535	28,242
New Zealand	15,872	139,185	243,387	323,508
Australasia	145,393	363,746	438,203	569,518

The production for the same periods was as follows :—

Colony.	1861.	1871.	1881.	1891.
	Bushels.	Bushels.	Bushels.	Bushels.
New South Wales...	152,426	280,887	356,566	276,259
Victoria	2,136,430	3,299,889	3,612,111	4,412,730
Queensland.....	.....	.....	1,121	16,669
South Australia.....	33,160	38,894	32,219	80,876
Western Australia..	8,162	28,330	8,270	18,539
Tasmania	751,475	593,477	783,129	873,173
New Zealand	512,665	3,726,810	6,924,848	11,009,020
Australasia.....	3,594,318	7,968,287	11,718,264	16,687,266

The average yield per acre in each province for the ten years which closed with 1891, was :— Average production of oats.

Colony.	Bushels.
New South Wales	21·9
Victoria	22·5
Queensland	17·7
South Australia	10·8
Western Australia	17·5
Tasmania	27·1
New Zealand	31·5
Australasia.....	27·7

The average yield of oats for the group was therefore 27·7 bushels per acre, New Zealand, with its high average yield, furnishing nearly 71 per cent. of the total production. The cultivation of this cereal is comparatively neglected in New South Wales ; in Victoria, however, it is next in importance to wheat, whilst in Queensland, South Australia, and Western Australia, the yield being small and the climate ill-adapted, oats count for very little in the total grain production. High yield of New Zealand.

The average yield of oats in the United Kingdom for the last available quinquennial period was 26·2 bushels ; the average for the United States was 25 bushels ; for Holland, 43·2 bushels ; France, 25·9 bushels ; Hungary, 20·3 bushels ; Austria, 16·5 Average yield of oats in foreign countries.

bushels; Russia in Europe, 14·5 bushels; while the Australasian average was 27·7 bushels.

Value of the oats crop.

The total value of the oats crop and the return per acre in each of the Australasian Colonies for the season 1891–2, will be found below:—

Colony.	Value.	Value per acre.
	£	£ s. d.
New South Wales	27,626	2 2 8
Victoria	514,818	2 14 2
Queensland	2,292	3 4 1
South Australia	9,435	0 14 11
Western Australia	3,703	2 16 11
Tasmania	101,870	3 12 2
New Zealand	825,676	2 11 0
Australasia	1,485,420	2 12 2

Import and export of oats.

The net import or export of oats for each of the Colonies is given below. New Zealand was the only province which exported to any considerable extent, the major part of her export being to the neighbouring Colonies; but, nevertheless, 1,886,081 bushels were forwarded to the United Kingdom:—

Colony.	Oats.	
	Net Imports.	Net Exports.
	Bushels.	Bushels.
New South Wales	1,439,334	.....
Victoria	234,114	.....
Queensland	93,548	.....
South Australia	110,318	.....
Western Australia	210,488	.....
Tasmania	.....	5,060
New Zealand	.....	4,052,132
Net Exports	.....	1,969,390

The World's production of oats.

According to a carefully compiled estimate of the average production of oats throughout the world, recently issued by the

United States Agricultural Department, the commercial supply of this grain is represented by the following condensed results :—

	Bushels.
Europe (official estimates)	1,592,114,138
,, (unofficial estimates)	34,050,000
United States	594,961,401
Australasia	17,045,346
Canada (estimated)	90,000,000
Total	2,328,170,885

MAIZE.

Maize. Maize is the principal crop grown in Queensland, and is one of the most important products of New South Wales; in the other Colonies the climate is little adapted to its growth, and the cultivation of this cereal does not extend to more than 14,000 acres.

Progress of the industry. The following figures show that fair progress has been made in the cultivation of maize since 1861. The first table shows the area under maize for grain in four decennial periods; the second gives the quantities produced :—

Colony.	1861.	1871.	1881.	1891.
	Acres.	Acres.	Acres.	Acres.
New South Wales...	57,959	119,956	117,478	174,577
Victoria	1,714	1,709	1,783	8,230
Queensland	1,914	20,329	46,480	101,598
New Zealand	770	.....	3,177	5,447
Other Colonies	91	113	36	23
Australasia.....	62,448	142,107	168,954	289,875

Colony.	1861.	1871.	1881.	1891.
	Bushels.	Bushels.	Bushels.	Bushels.
New South Wales...	1,727,434	4,015,973	4,330,956	5,721,706
Victoria	20,788	30,833	81,007	461,447
Queensland	42,100	508,000	1,313,655	3,077,915
New Zealand	31,570	.....	127,257	238,746
Other Colonies	367	2,000	648	483
Australasia.....	1,822,259	4,556,806	5,853,523	9,500,297

Rate of production of maize.

The following is the average rate of production of each Colony, and of the whole group for the ten years ending with 1891 :—

Colony.	Bushels.
New South Wales	30·9
Victoria	48·2
Queensland	24·2
Western Australia	17·7
New Zealand	*42·1
Australasia	29·4

* Last five years only.

The figures for Victoria and New Zealand are worth little, as the land under maize is small in area, and very favourably situated, while Western Australia had but 86 acres under cultivation, producing 1,500 bushels. The average yield of maize in the United States for the last five years was 23·3 bushels, while for Austria and Hungary the average was a little over 19 bushels, and Italy produced at the rate of about 16 bushels. Little good, however, is to be gained by placing these figures with the Australasian averages, as the acreage devoted to maize in Australasia is too small to make any such comparison useful.

Value of the maize crop.

The total value of the maize crop of 1891-2 and the average return per acre of the maize-growing colonies of Australasia will be found below :—

Colony.	Total value of Crop.	Average value per acre.
	£	£ s. d.
New South Wales	667,532	3 16 6
Victoria	65,372	7 18 10
Queensland	384,739	3 15 9
New Zealand	35,811	6 11 6
Other Colonies	145	6 6 0
Australasia	1,153,599	3 18 3

The high average value of production of maize per acre in Victoria and New Zealand is due to the fact that the area operated

upon is small, and the local average prices are relatively higher than in New South Wales and Queensland, where large areas are devoted to the cultivation of this cereal.

The net import or export of maize for each Colony during 1891 was :— Imports and exports of maize.

Colony.	Net Imports.	Net Exports.
	Bushels.	Bushels.
New South Wales	273,160	.....
Victoria	3,794	.....
Queensland	.....	311,565
South Australia	4,156	.....
Western Australia	2,120	.....
Tasmania	3,492	.....
New Zealand	.....	43,307
Net imports	.....	68,150

New South Wales is the only Colony importing maize to any extent from abroad, chiefly from United States and New Caledonia. The balance in favour of exports is owing to the fact that Queensland exported last year 311,565 bushels chiefly to the United Kingdom. From the above it may be readily understood that Australasia practically consumes the whole of its production of maize. In this part of the world, however, corn does not enter into consumption as an article of food as it does in other countries, and particularly in America, which produces and consumes nearly 80 per cent. of the whole maize crop of the world as the following figures—compiled on the authority of the Department of Agriculture in the United States—will show :— Consumption of maize. Maize crop of the World.

	Bushels.
Europe (official)	311,820,759
,, (unofficial)	54,196,250
Asia (official)	823,868
Africa ,,	2,904,979
,, (unofficial)	13,620,000
United States (official)	1,680,696,600
America (unofficial)	229,109,606
Australasia	9,500,297
Various Islands (unofficial)	30,147
	2,302,702,506

BARLEY.

Cultivation of barley.

Barley is the least cultivated of the cereal productions of Australasia. The area and production for each period under review were as follow :—

Colony.	1861.	1871.	1881.	1891.
	Acres.	Acres.	Acres.	Acres.
New South Wales	2,924	3,461	6,427	4,459
Victoria	3,419	16,772	48,652	45,021
Queensland	13	971	256	739
South Australia	10,637	17,225	11,953	11,461
Western Australia	2,412	5,083	3,679	3,738
Tasmania	7,279	4,275	4,597	2,644
New Zealand	3,457	13,305	29,808	24,268
Australasia	30,141	61,092	105,372	92,330

Colony.	1861.	1871.	1881.	1891.
	Bushels.	Bushels.	Bushels.	Bushels.
New South Wales	41,054	55,284	135,218	93,446
Victoria	68,118	335,506	927,566	830,741
Queensland	158	11,836	3,207	21,302
South Australia	168,137	164,161	137,165	107,183
Western Australia	2,412	5,083	36,790	48,594
Tasmania	169,381	76,812	102,475	71,400
New Zealand	96,658	287,646	664,093	688,683
Australasia	545,918	936,328	2,006,514	1,861,349

Production of barley.

The average production of barley per acre for each Colony is given in the following table for the ten years period 1882–91.

Colony.	
	Bushels.
New South Wales	19·4
Victoria	18·6
Queensland	24·4
South Australia	12·2
Western Australia	15·3
Tasmania	24·4
New Zealand	28·3
Australasia	20·5

The trade in barley and malt for each Colony in 1891 was :— Barley and malt.

Colony.	Barley.		Malt.	
	Net Imports.	Net Exports.	Net Imports.	Net Exports.
	Bushels.	Bushels.	Bushels.	Bushels.
New South Wales	60,031	.....	383,697	.....
Victoria	.....	54,968	.....	44,950
Queensland	473	.....	110,912	.....
South Australia	21,557	.....	49,098	.....
Western Australia	3,160	.....	5,704	.....
Tasmania	14,523	.....	211	.....
New Zealand	.....	83,666	.....	118,581
	.....	38,890	386,091	.....

Barley is not cultivated to the extent it deserves. In fruitful seasons, Australasia produces sufficient barley, exclusive of that required for malt, for home requirements, and a small surplus for export; but if the combined trade in barley and malt be considered, all the Colonies, with the exception of Victoria and New Zealand, are dependent upon external sources. The high import duties in Victoria on both these articles practically prohibit importations. Limited cultivation of barley.

The total value of the barley crop and the average return of this cereal per acre during the season 1891–2 in each of the provinces of Australasia will be found below :— Value of barley crop.

Colony.	Total value of Barley Crop.	Average value per acre.
	£	£ s. d.
New South Wales	10,513	2 7 2
Victoria	124,611	2 15 4
Queensland	2,752	3 14 6
South Australia	16,077	1 8 0
Western Australia	10,326	2 15 3
Tasmania	12,495	4 14 7
New Zealand	88,954	3 13 4
Australasia	265,728	2 17 7

POTATOES.

Cultivation of potatoes.

The cultivation of the potato is not confined to any particular Colony, but Victoria and New Zealand are the leading growers, as will be seen from the subjoined table :—

Colony.	1861.	1871.	1881.	1891.
	Acres.	Acres.	Acres.	Acres.
New South Wales	10,040	14,770	15,943	22,560
Victoria	27,174	39,064	39,129	57,334
Queensland	512	3,121	5,086	9,173
South Australia	2,612	3,156	6,136	6,892
Western Australia	277	494	278	532
Tasmania	9,349	8,154	9,670	16,368
New Zealand	7,292	11,933	22,540	27,266
Australasia	57,256	80,692	98,782	140,125

The production for the same periods was :—

Colony.	1861.	1871.	1881.	1891.
	Tons.	Tons.	Tons.	Tons.
New South Wales	30,942	44,758	44,323	62,283
Victoria	59,364	125,841	134,290	109,786
Queensland	1,080	6,585	11,984	25,018
South Australia	7,726	10,989	18,154	27,824
Western Australia	817	1,457	556	1,596
Tasmania	47,428	22,608	33,565	62,995
New Zealand	37,554	42,130	121,890	162,046
Australasia	184,911	254,368	364,762	451,548

Production of potatoes.

The average production of potatoes per acre, expressed in tons, for Australasia and for each of the separate Colonies is next given, for the ten years which ended with 1891. New Zealand, it will be seen, shows a considerably larger return per acre than any of the other provinces :—

Colony.	Per acre.
	Tons.
New South Wales	2·7
Victoria	3·7
Queensland	2·2
South Australia	3·6
Western Australia	2·9
Tasmania	4·0
New Zealand	5·3
Australasia	3·9

Only three of the Colonies are in a position to export potatoes, Tasmania, New Zealand, and Victoria; but the surplus available for export in the last-mentioned province, though at one time considerable, has now very much decreased. Imports and exports of potatoes.

The following were the Imports and Exports of Potatoes :—

Colony.	Net Imports.	Net Exports.
	Tons.	Tons.
New South Wales	51,011	.....
Victoria	.....	8,300
Queensland	12,269	.....
South Australia	175	.....
Western Australia	1,680	.....
Tasmania	.....	23,049
New Zealand	.....	35,609
Net Export	.....	1,823

The total value of the potato crop and the average return per acre for 1891–2, in the Australasian Colonies, will be found below :— Value of potato crop.

Colony.	Total Value of Crop.	Average value per acre.
	£	£ s. d.
New South Wales	249,132	11 0 10
Victoria	356,804	6 4 5
Queensland	93,817	10 4 6
South Australia	125,208	18 3 4
Western Australia	14,763	27 15 0
Tasmania	149,613	9 2 10
New Zealand	263,325	9 13 2
Australasia	1,252,662	8 18 6

In the above table, the average for Western Australia may appear excessive, but it is due to the very small area under this crop which is principally raised as a kitchen garden crop. As regards South Australia, the high average is due to the prices obtained during the year in the Adelaide market, which were higher

than those ruling in the other Colonies. Victoria, Tasmania and New Zealand are exporting countries, producing largely in excess of their requirements, hence the comparatively small returns owing to the low price of the produce in their local markets.

HAY.

Area under hay.

Considerable quantities of wheat, oats, and barley are grown for the purpose of being converted into hay. This crop in point of value is second in importance of the agricultural production. The area under crop for hay has since 1881 steadily and largely increased, as will be seen from the table herewith.

Colony.	1861.	1871.	1881.	1891.
	Acres.	Acres.	Acres.	Acres.
New South Wales	45,175	51,805	146,610	163,863
Victoria	74,681	103,206	212,150	369,498
Queensland	280	3,828	16,926	30,655
South Australia	62,874	97,812	333,467	304,171
Western Australia	6,676	*14,342	24,445	28,534
Tasmania	31,803	31,578	34,790	45,338
New Zealand	†27,160	30,717	68,423	145,728
Australasia	248,649	333,288	836,811	1,087,787

* In 1869. † In 1867.

Production of hay.

The production for the same periods was :—

Colony.	1861.	1871.	1881.	1891.
	Tons.	Tons.	Tons.	Tons.
New South Wales	57,363	77,460	198,532	209,417
Victoria	92,497	144,637	238,793	505,246
Queensland	459	6,278	19,640	58,842
South Australia	78,886	98,266	240,827	193,317
Western Australia	6,609	14,288	24,445	28,534
Tasmania	59,851	30,891	44,957	66,996
New Zealand	36,666	35,674	89,081	243,716
Australasia	332,331	407,494	856,275	1,306,068

The average production of hay per acre for each Colony will be found in the next table, the period embraced by the average being the ten years which closed with 1891 :— Average yield of hay.

Colony.	Tons.
New South Wales	1·2
Victoria	1·2
Queensland	1·7
South Australia	1·0
Western Australia	1·0
Tasmania	1·2
New Zealand.	1·4
Australasia	1·2

The greater portion of the hay is made from wheat, though large quantities of oaten and lucerne hay are produced in Victoria, New South Wales, and New Zealand. Hay is, for the most part, grown in each province in quantities sufficient for its own requirements, New South Wales being the only one which imports to any extent.

The net import or export of hay and chaff for each Colony for the year 1891 was :— Imports and exports of hay

Colony.	Net Imports.	Net Exports.
	Tons.	Tons.
New South Wales	57,472	.....
Victoria	.....	45,817
Queensland	2,324	.....
South Australia	.....	6,456
Western Australia	1,563	.....
Tasmania	.....	6,291
New Zealand	.....	581
Net imports	2,214	.....

Value of the hay crop.

The total value of the hay crop and the average return per acre for the season 1891–2 in the Australasian Colonies will be found below :—

Colony.	Total Value of Hay Crop.	Average Value per Acre.
	£	£ s. d.
New South Wales	732,959	4 9 5
Victoria	1,389,426	3 15 2
Queensland	164,424	5 7 3
South Australia	869,927	2 17 2
Western Australia	185,471	6 10 0
Tasmania	251,235	5 10 10
New Zealand	958,020	6 11 6
Australasia	4,551,462	4 3 8

GREEN FORAGE AND SOWN GRASSES.

Area under crops for green fodder.

The cultivation of maize, sorghum, barley, oats, and other cereals for the purpose of green food, and the laying down of lands under lucerne and grass, engage attention in the districts where dairy-farming is carried on. The agricultural returns of some of the Colonies do not admit of a distribution being made between these forms of cultivation prior to 1887. The following table shows the area under such green food for 1887 and 1891, and it will be seen that there have been large developments in most of the Colonies, chiefly in New Zealand. After a consideration of the figures relating to the last-mentioned province, little difficulty will be experienced in accounting for its superiority in the dairy-farming industry :—

	Green Food.		Sown Grasses.	
	1887.	1891.	1887.	1891.
	Acres.	Acres.	Acres.	Acres.
New South Wales	20,403	32,138	192,678	333,238
Victoria	6,036	9,202	154,612	174,982
Queensland	9,582	10,727	13,619	20,921
South Australia	10,079	6,416	23,217	17,519
Western Australia	... ..	238	.....	.....
Tasmania	1,246	2,255	184,653	208,481
New Zealand	421,719	21,087	5,869,247	7,403,881
Australasia	469,065	82,063	6,438,026	8,159,022

THE VINE.

Introduction of the grape-vine in Australia.

The history of the vine in Australia dates from the year 1828, when cuttings from the celebrated vineyards of France, Spain, and the Rhine Valley, were planted in the Hunter River District of New South Wales, and formed the nursery for the principal vineyards of that Colony. Years afterwards the vine was planted in the Murray River District and other parts of New South Wales, and was afterwards introduced into Victoria and South Australia, and is now cultivated in all the provinces of the Australian continent. In South Australia a large proportion of Germans are employed in the industry of wine-making.

Climate and soil adapted to the vine.

The climate and soil of Australia are peculiarly adapted to the successful cultivation of the vine, and with a demand which the present production hardly satisfies, and also the opening up of a market in England, where Australian wines have obtained due appreciation, the future expansion of wine-growing appears fairly assured. The depreciation which French and other foreign wines have suffered, both in quantity and quality, owing to the devastation of the vineyards by phylloxera is an additional reason for the vine-growers of this continent looking forward to largely increased operations for their industry.

Progress of vine cultivation.

The progress of vine cultivation since the year 1861 is illustrated by the table subjoined. The areas given include the vines grown for table use, as well as for wine-making; also the young vines not yet in bearing:—

Colony.	1861.	1871.	1881.	1891.
	Acres.	Acres.	Acres.	Acres.
New South Wales	1,692	6,618	6,624	8,281
Victoria	1,464	5,523	4,923	24,483
Queensland	40	568	1,212	1,988
South Australia.....	3,918	5,455	4,202	12,314
Western Australia	457	692	527	1,004
Australasia	7,571	18,856	17,488	48,070

Area devoted to vines.

Until the year 1881 New South Wales contained the principal wine-growing districts, but at present the area devoted to vines is much larger in Victoria and South Australia. Of recent years great attention has been paid to the industry in Victoria, and that province now produces more than half the wine made in Australasia. The following table shows the progress made during thirty-one years :—

Colony.	1861.		1871.		1881.		1891.	
	Wine.	Table Grapes.	Wine.	Table Grapes.	Wine.	Table Grapes.	Wine.	Table Grapes.
	Gallons.	Tons.	Gallons.	Tons.	Gallons.	Tons.	Gallons.	Tons.
New South Wales	85,328	224	413,321	508	513,688	1,103	913,107	3,694
Victoria	47,568	849	713,589	1,545	539,191	740	1,554,130	2,791
Queensland	....	....	....	....	72,121	255	168,526	1,169
South Australia	312,021	1,161	852,315	1,692	313,060	1,498	801,835	4,590
Western Australia	....	....	....	....	99,600	....	166,664	....
Australasia	444,917	2,234	1,979,225	3,745	1,537,660	3,596	3,604,262	12,244

It is impossible to tabulate the averages of all the Colonies, as in many instances the acreage under cultivation for wine-making purposes cannot be separated from young unproductive vineyards, or areas cultivated for table varieties of grape only. Making, however, due allowance for this fact, it would appear that the average production for the season 1891-92 was about 166 gallons in Western Australia, 160 gallons in South Australia, 170 gallons in Victoria, 237 gallons in New South Wales, and 247 gallons in Queensland. Taking an average year, the production for Australasia may be set down at 190 gallons. The average production in gallons per acre for other countries is shown by the following figures :—

Average production of wine.

Country.	Gallons per acre.	Country.	Gallons per acre.
Algeria	300	France	133
Cape Colony	220	Spain	130
Switzerland	210	Russia	130
Germany	185	Hungary	117
Portugal	175	Chili	100
Austria	152	Argentine Republic	100
Servia	150	Italy	89
Roumania	150		
United States	140	Australia	190

Compared with the wine production of other countries, as given hereunder, that of Australia appears small, but the prospects of this industry are sufficiently promising to encourage a hope that the coming years will witness important developments :— The World's production of wine.

Country.	Production in million gallons.	Country.	Production in million gallons.
Italy	715	Roumania	30
France	624	Turkey and Cyprus	20
Spain	550	Chili	20
Hungary	100	United States	18
Austria	90	Switzerland	15
Portugal	90	Argentine Republic	6
Germany	55	Cape Colony	6
Servia	45	Australia	4
Russia	40		
Algeria	40	Total	2,502
Greece	34		

The following table illustrates the progress of the Australian wine trade with Europe since 1881. The total value of this trade in 1891, it will be noticed, had grown to ten times what it was in 1881, while the number of gallons exported to Europe had increased over sixteen fold :— Wine trade with Europe.

Colony.	1881.		1891.	
	Quantity.	Value.	Quantity.	Value.
	Gallons.	£	Gallons.	£
New South Wales	13,271	3,520	9,451	2,255
Victoria	5,588	2,341	136,213	24,727
Queensland	124	60	.....	.....
South Australia	2,859	580	226,587	38,630
Australasia	21,842	6,501	372,251	65,612

Including the trade of one province with another, as well as the foreign trade, the exports of each during the same years is shown as under :—

Colony.	1881.		1891.	
	Gallons.	£	Gallons.	£
New South Wales	22,377	7,233	54,143	11,644
Victoria	12,544	5,388	160,982	32,516
Queensland	124	60	.....	.....
South Australia	57,812	12,879	286,188	58,684
Australasia	92,857	25,560	501,313	102,844

Value of grape crop.

The total value of the grape crop, and the average return per acre for the year 1891 in the Australian Colonies, will be found below :—

Colony.	Total value of Crop.	Average value per acre.
	£	£ s. d.
New South Wales	211,510	25 10 10
Victoria	340,846	13 8 5
Queensland	29,251	14 14 3
South Australia	196,320	15 18 10
Western Australia	42,186	42 0 4
Australasia	820,113	17 1 3

SUGAR-CANE.

Sugar-cane plantations.

The growth of the cane and manufacture of sugar are important features in the industry of Queensland and New South Wales, but whilst the climate of the former Colony renders the employment of white labour in the field almost impossible, the plantations of the latter are worked without the assistance of coloured labour. The owners of Queensland plantations usually combine the functions of cane-growers and sugar manufacturers, but in New South Wales, where the numerous holdings are, as a rule, small in area, the cane is purchased from the planters principally by the Colonial

Sugar Refining Company, whose various crushing mills and refinery are fitted with machinery of the most modern character. The importation of coloured labour into Queensland has been renewed under stringent regulations to protect the Kanakas. The attempt made in 1891 by the planters to solve the difficult problem as to whether successful sugar-growing is compatible with the employment of white labour, by the introduction of Italian farm-labourers under contract to work in the sugar plantations for a number of of years, was a failure. Japanese immigrants are now being introduced.

Coloured labour in Queensland.

The area under cane for the years specified below was :—

	1864. Acres.	1871. Acres.	1881. Acres.	1891. Acres.
New South Wales	22	4,394	12,167	22,262
Queensland	94	9,581	28,026	50,948
Total	116	13,975	40,193	73,210

The progress of this industry has been very rapid, especially in Queensland, the area of suitable land being very large in that Colony. Some years ago sugar-growing was started on the Daly River, in the Northern territory of South Australia, but no statistics are available regarding acreage or production.

Progress of sugar-growing.

The area given includes all the cane planted, whether cut during the year or not. The following table shows the acreage actually cut during the last six years :—

Acreage of cane actually cut.

	1886. Acres.	1887. Acres.	1888. Acres.	1889. Acres.	1890. Acres.	1891. Acres.
New South Wales	5,915	8,380	4,997	7,348	8,344	8,623
Queensland	34,657	36,806	32,375	29,438	40,208	36,821
Total	40,572	45,186	37,372	36,786	48,522	45,444

The returns of the sugar industry, both for Queensland and New South Wales, are incomplete. In those of the former Colony the yield of cane per acre is not stated; and in the latter the production of sugar per ton of cane crushed is not given. As regards the latter it varies, of course, with the density of the juice, but in ordinary seasons it may be set down at something over 9 per cent.

Quantity of sugar produced

The production of sugar from cane crushed for the last six years was as follows :—

	1886. Tons.	1887. Tons.	1888. Tons.	1889. Tons.	1890. Tons.	1891. Tons.
New South Wales ...	13,750	22,500	11,279	19,016	26,533	25,245
Queensland	56,859	57,960	34,022	44,411	68,924	51,219
Total	70,609	80,460	45,301	63,427	95,457	76,464

The figures in the foregoing are from the returns made by the mill-owners, and, possibly, as regards Queensland, somewhat understate the truth.

Australasian imports of sugar.

The net imports of sugar by each Colony for 1891 are shown in the subjoined table. Queensland was the only Colony that was able to supply sugar enough for its own requirements, and spare some for export. The surplus amounted to 40,856 tons valued at £630,612, which was mostly exported to the other Colonies, only 4,378 tons having been for foreign export. The following figures include the 36,478 tons from Queensland :—

	Quantity.	Value.
	Tons.	£
New South Wales	31,245	563,927
Victoria	54,043	875,450
South Australia	17,998	293,586
Western Australia	2,416	60,410
Tasmania	5,123	97,230
New Zealand	27,531	371,523
Australasia	138,356	2,262,126

The imports, therefore, amounted to 97,500 tons, valued at £1,631,514, of which only 91,225 tons, of the value of £1,419,129, can be traced to the original country of shipment, viz. :—

Country.	Quantity.	Value.
	Tons.	£
Mauritius	22,712	455,378
Fiji	18,271	208,311
Java	43,567	624,745
Hong Kong	118	2,136
Other countries	6,557	128,559
Total	91,225	1,419,129

The total value of the sugar crop, and the average return per acre, for the year 1891, in the sugar-growing Colonies of Australia, will be found below :— Value of the sugar crop.

Colony.	Value of Cane grown.	Average value per acre.
	£	£ s. d.
New South Wales	138,943	6 4 10
Queensland	281,705	7 13 0

TOBACCO.

The cultivation of the tobacco plant has received attention in the three eastern Colonies. The following table shows the area and production of tobacco for four decennial periods :— Area and production of tobacco.

Year.	New South Wales.		Victoria.		Queensland.		Australasia.	
	Acres.	cwt. of leaf.	Acres.	cwt. of leaf.	Acres.	cwt. of leaf.	Acres.	cwt. of leaf.
1861	224	2,647	220	2,552	..	.. ..	444	5,199
1871	567	4,475	299	2,307	44	.....	910	6,782
1881	1,625	18,311	1,461	12,876	68	521	3,154	31,708
1891	886	9,314	545	2,579	790	7,704	2,221	19,597

Owing to over production, and the want of a foreign market, the area devoted to tobacco culture has greatly declined since 1888, when 6,341 acres were devoted to this industry, and 70,251 cwt. of leaf was grown. The Australasian tobacco leaf has not yet been prepared in such a way as to find acceptance abroad, and until such is accomplished it will be useless to expect the cultivation of the plant to become a settled industry. The soil and climate of Australia appear to be suitable for the growth of the plant, but sufficient care and skill have not been expended upon the preparation of the leaf. The quantity just mentioned as having been produced in 1888 was so greatly in excess of local requirements that very low prices only could be obtained, and a Decline of the industry.

large portion of the crop was left upon the growers' hands. The result was that many farmers abandoned the cultivation of tobacco, so that the area under this crop during 1889 was only 3,239 acres in New South Wales, and 955 acres in Victoria, producing respectively 27,724 cwt. and 4,123 cwt. of leaf—less than half the crop of the previous year. In 1891 the acreage showed a further decline to 886 acres in New South Wales, and 545 acres in Victoria, with a yield of 9,314 cwt. and 2,579 cwt. respectively. In Queensland, on the other hand, the acreage increased from 123 acres in 1888 to 540 acres in 1890 and 790 in 1891.

Average production.

The average production of tobacco per acre for the year which closed with December, 1891, was :—

Colony.	Cwt.
New South Wales	10·7
Victoria	5·8
Queensland	8·1
New Zealand	5·3
Australasia	8·7

Tobacco cultivation in foreign countries.

This average is somewhat larger than that of countries where the plant is grown under like circumstances, but the cultivation in Australia is altogether too restricted to make any comparison with those countries valuable. The following table shows the production per acre in foreign countries :—

Country.	Cwt. per acre.	Country.	Cwt. per acre.
Russia	13·6	Turkey	7·8
Germany	12·3	Manilla, &c.	7·4
France	11·4	United States	7·0
Austria	9·3	Brazil	7·0
West Indies	8·8	India	5·9
Java	8·4		
Japan	8·0	Australia	8·7

The Agricultural Department of Queensland is endeavouring to assist the tobacco-growers by the importation of American seed of first quality, suitable to the Queensland climate. New Zealand also has commenced the cultivation of tobacco, but it is only so far in the condition of an experiment.

Imports of tobacco, &c.

The following table shows the imports for home consumption of tobacco, cigars, and cigarettes into Australasia during 1891 :—

Colony.	Quantity.
	lb.
New South Wales	2,333,964
Victoria	2,002,202
Queensland	981,480
South Australia	815,062
Western Australia	287,002
Tasmania	278,183
New Zealand	1,482,176
Australasia	8,180,069

Value of the tobacco crop.

The total value of the tobacco crop and the average gross return per acre for the year 1891 in the Australasian Colonies are given below :—

Colony.	Total value of Crop.	Average value per acre.
	£	£ s. d.
New South Wales	15,213	17 3 4
Victoria	5,158	9 9 3
Queensland	15,408	19 10 0
New Zealand	31	5 3 4
Australasia	35,810	15 8 0

As will be seen from the above table, in Queensland and New South Wales the returns are fairly comparative, but in Victoria they are very small, whilst the experimental stage of the industry in New Zealand gives no test of its possible value.

GARDENS AND ORCHARDS.

Cultivation of fruit.

The cultivation of fruit does not attract anything like the attention it deserves, although the soil and climate of large areas in all the provinces are well adapted to fruit-growing. Nevertheless, some progress has been made, especially of recent years. In 1891 the proportion of the total cultivation allotted to fruit was 2·1 per cent., while in 1881 the proportion was 1·5; the area per 1,000 persons in the first-named year was 36 acres; in 1881 it was 29·4 acres. Grapes, oranges, apples, pears, and peaches are the principal fruits grown, but with an unlimited area suitable for this class of cultivation, and the climatic conditions so varied, varying from extreme cold in New Zealand and the high lands of New South Wales and Victoria, to tropical heat in Queensland, a large variety of fruits could be cultivated, and the industry only languishes for want of sustained demand for fruit products. The area under orchards and gardens in 1881 and 1891 was:—

Colony.	1881.		1891.	
	Area.	Percentage to total area under Crops.	Area.	Percentage to total area under Crops.
	acres.		acres.	
New South Wales.....	24,565	4·3	40,116	4·7
Victoria	20,630	1·4	37,435	1·8
Queensland	3,262	2·8	9,758	4·0
South Australia.....	9,864	0·4	14,422	0·7
Tasmania	6,717	4·5	10,696	6·4
New Zealand.....	16,360	1·5	29,235	2·0
Australasia.....	81,398	1·5	141,662	2·1

Exportation of fruit.

With the extension of artificial irrigation, and the increased facilities of export by the adoption of the cool chambers for the preservation of fruit for long voyages the fruit growers of Australasia are now enabled to compete with foreign states in the fruit supply for the English market, which in 1891 was valued at over £8,000,000. The Tasmanian fruit trade with England has passed

the experimental stage, and every season large steamers visit Hobart to receive fruit for the home market.

The following table shows the import and export trade of each Colony in green fruit and pulp for 1891, from which it will be seen that with the exception of Tasmania all the other Colonies import considerably more than is exported :—

Colony.	Imports.	Exports of Domestic Produce.
	£	£
New South Wales	335,809	130,703
Victoria	319,859	33,329
Queensland	101,652	47,950
South Australia	45,011	35,387
Western Australia	10,214	.....
Tasmania	25,578	125,888
New Zealand	126,528	3,343
Australasia	964,651	376,600

Value of fruit and garden crops.

The total value of the gardens and orchards crop, and the average returns per acre of this branch of agriculture in 1891 in each Colony, save Western Australia, were :—

Colony.	Total value of Crop.	Average value per acre.
	£	£ s. d.
New South Wales	487,548	12 2 1
Victoria	1,123,050	30 0 0
Queensland	259,170	26 11 2
South Australia	432,660	30 0 0
Tasmania	191,253	17 17 7
New Zealand	582,645	19 18 7
Australasia	3,076,326	21 14 3

The average returns per acre of gardens and orchards in each Colony have but little value for purposes of comparison, as much depends on the proportion of the areas under certain kinds of fruit, and under vegetable gardens, which would tend to raise or decrease, as the case may be, the general average returns per acre in certain provinces. In New South Wales, the smallness of the average is explained by the fact that in a great number of instances,

owing to a lack of facilities for disposing of the fruit crops, which is a source of complaint from the growers, the produce of the orchards did not reach the markets, and, in some cases, was not even gathered. In Tasmania and New Zealand, stone fruits are principally grown, the gross returns from which are much smaller than those obtained from the cultivation of grapes and sub-tropical fruits such as the orange, and citron, &c., which tend to increase the average returns in the continental and northern provinces.

MINOR CROPS.

Minor Crops.

Besides the crops already specifically noticed there are small areas on which are grown a variety of products, chiefly rye, bere, onions, beans, peas, turnips, mangel wurzel, pumpkins, melons, and hops, but none of these crops are sufficiently important to warrant a special notice. The area under such crops for each province in 1891 was:—

Colony.	Area.
	Acres.
New South Wales	7,617
Victoria	42,050
Queensland	6,232
South Australia	6,953
Western Australia	1,973
Tasmania	14,640
New Zealand	445,959
Australasia	525,424

Condition of Agriculture in the Colonies.

Although considerable progress has of late years been made in some directions, it must be admitted generally, that agriculture in the Australasian Colonies has scarcely passed the tentative stage. The typical Australian agriculturist, relying largely on a bountiful nature, does not exercise upon crops anything approaching the same patience, care, and labour that are bestowed by the European cultivator; nor, as a rule, does he avail himself of the benefits of scientific farming and improved implements to the extent that

prevails in America and Europe. It may be expected that improvements will take place in this respect and that the efforts made by the Governments of New South Wales, Victoria, and South Australia for the promotion of scientific farming, will bear good fruit. Agricultural colleges and model farms have been established in the three Colonies, and travelling lecturers are sent to agricultural centres.

IRRIGATION.

Necessity for irrigation.

Originally cultivation in Australia was confined to the banks of the coastal rivers, and the country near the sea, and within the influence of regular rainfall. Now, however, that cultivation has spread beyond the coastal districts and the adjacent table-lands, into the interior of the continent, where the irregular character of the rainfall makes harvesting uncertain, irrigation has become necessary to insure successful husbandry. For some years past small areas have been irrigated by private enterprise; 29,343 acres were returned as irrigated in New South Wales during 1891, and in 1889 there were 24,574 acres irrigated in Victoria.

Mildura.

A few years ago a special Act was passed by the Victorian Legislature, enabling the Government to hand over to the firm of Chaffey Brothers an area of 250,000 acres of mallee scrub, situated at Mildura, in the Swan Hill district, about 340 miles north-west of Melbourne. The land was then uninhabited and practically valueless. Now it has grown into a flourishing Colony, with about 3,000 inhabitants. The Act obliged the promoters to spend £35,000 on the land within the first five years, but they actually expended £275,000 within less than four years, and have thus become entitled to the freehold of 40,000 acres, holding the balance of the 250,000 acres on lease. In addition to the sum mentioned it is estimated that the settlers have spent at least £100,000 in improving the land.

Production of raisins.

The raisin industry is so far the leading one at Mildura, but all kinds of fruit grow to perfection, and out of 6,500 acres cultivated no less than 6,000 acres are orchards and gardens.

Irrigation in Victoria.

A number of irrigation trusts have been formed in Victoria, and extensive works constructed in various districts, chiefly on the Goulburn, Loddon, Wimmera, and Avoca Rivers.

Irrigation in New South Wales.

In New South Wales matters are in a more backward state. The water conservation branch attached to the Department of Works is at present engaged in obtaining sufficient hydrographical data to form the basis of a scheme of irrigation for vast areas in the vicinity of the Murray, Murrumbidgee, Lachlan, Macquarie, and Darling Rivers.

Mulgoa.

A company of capitalists has also commenced operations under what appears to be great promise of success, and has secured an area of about 20,000 acres in the Mulgoa district, within a distance of 30 miles of the metropolitan market. The soil consists chiefly of a rich friable loam, but the district suffers from an unequal rainfall. An Act, passed by the New South Wales Legislature in 1890, gives the right to tap the Nepean, and if necessary the Warragamba River, for the purpose of irrigating this area, and it is proposed to devote the land chiefly to the cultivation of vines and fruit-trees.

Renmark.

In October, 1888, the firm of Chaffey Brothers commenced operations in South Australia, at a place called Renmark, situated on the river Murray, close to the boundary of New South Wales, and about 70 miles below Mildura, where an area of 250,000 has been set apart for irrigation purposes, and although Renmark has not progressed so rapidly as Mildura, it promises in time to become an important settlement.

ARTESIAN WELLS.

Underground Water Supply.

The necessity of providing water for stock in the dry portions of the interior of the Australian Continent, induced the various Governments to devote certain funds for the purpose of sinking for water and bringing to the surface such supplies as might be obtained from the underground sources which geologists stated to exist in the tertiary drifts and the cretaceous beds which extend under an immense portion of the area of Central Australia, from

the Western districts of New South Wales to a yet unknown limit into Western Australia.

New South Wales.

In New South Wales the question of the existence of underground waters had long been a subject of earnest discussions, but doubts were set at rest in 1879 by the discovery, on the Killara Run, at a depth of 140 feet, of an artesian supply of water which rose 26 feet above the surface. The Government undertook the work of searching for water, and since the year 1884 the sinking of artesian wells has proceeded in a scientific and systematic manner, under the direction of specially trained officers. Private enterprise, which had shown the way, has also followed up its first successes. It has been ascertained from official sources that contracts have already been let by the Government of New South Wales for the sinking of fifty-two wells; of these, nineteen have been completed, nine are in progress, and the others will shortly be commenced. From the completed wells a total of about 5,000,000 gallons of water flow every day to the surface; at the Mongulla bore and at the Native Dog bore the daily supply reaches respectively 1,750,000 and 1,500,000 gallons. But these are far from being the most successful artesian wells in New South Wales, for some wells sunk by private enterprise have tapped much larger supplies; the Coomburrah well, for instance, has a daily flow of 5,000,000 gallons, and those at Leila Springs, Tinenburrah, Lissington, Briwara, &c., give aggregate flows exceeding 2,000,000 gallons of water per diem. A better idea of the importance of these wells to the community will be obtained when it is known that the aggregate flow of underground water brought to the surface since the year 1884 reaches the enormous quantity of over 40,000,000 gallons of water in New South Wales alone.

Queensland.

The Queensland Hydraulic Engineer reports that in the year 1891 eleven bores had been successfully completed by private contractors on Government account, the more remarkable being that at Charleville, where a daily supply of 3,000,000 gallons was struck at a depth of 1,370 feet. The number of private bores is

given at ninety-one, of which seventy-five were successfully sunk; in some cases, however, the supply is sub-artesian, and has to be pumped to the surface. The largest daily supply was yielded by the well at Burranbilla, where a flow of 4,000,000 gallons was struck at a depth of 1,811 feet; on the Noorama Run there are three wells yielding, respectively, 3,456,000 gallons, and 1,500,000 gallons. Several other wells yield over 1,000,000 gallons of water per diem, and the aggregate flow from artesian sources in Queensland, at the date of this report was about 46,000,000 gallons per day.

South Australia. In South Australia a number of bores have been put down with success in widely distant parts of the territory, and an essay was made on the Great Australian Bight, which resulted in a supply being struck on the Nullarbor Plain, at a depth of 777 feet, yielding 68,000 gallons per diem, the supply is, however, sub-artesian; other wells have been sunk since with better results, the water rising to the surface in several instances. The most successful wells, however, are situated in the central portion of the territory, those at Hergott Springs, Coward, Strangways, and Mungamurtree, giving supplies of 50,000 to 1,200,000 gallons per diem.

Western Australia. The Government of Western Australia, following the example set by those of the Eastern Colonies, has lately entered into contracts for the sinking of a line of wells in the direction of the South Australian Border.

Victoria. In the province of Victoria the Government have since the year 1886, spent a sum of £42,700 in experimental borings, but, so far, the results have not been encouraging. Artesian water has, however, been struck at Sale, in Gippsland, where the first artesian well was bored, in the year 1880, and also lately at Mordialloc.

The fears so long entertained that the search for underground water might prove unsuccessful have now been dissipated by the results already attained, and both private firms and the State are emulating each other in extending their operations throughout the arid portions of the continent, meeting generally with the most pronounced success.

PASTORAL RESOURCES AND DAIRY INDUSTRY.

Commencement of the pastoral industry.

NOTWITHSTANDING the fact that the soil, climate, and indigenous herbage of Australasia are admirably adapted to the sustenance of animal life, no attempt was made to test the capabilities of the land as a feeding ground for flocks and herds on a large scale, until the example of Captain Macarthur had demonstrated, beyond doubt, that Nature favoured the production in Australasia of a quality of wool unsurpassed by that of any part of the world. Then the settlers began to understand and utilise the natural resources of the country, and as the indomitable spirit of exploration gradually opened up the apparently boundless plains of the interior, pastoralists extended their domain, and sheep and cattle in increasing numbers spread over the face of Eastern Australia. The expansion of the pastoral industry is gradually converting the central and western portions of the continent into holdings, devoted to the production of the greatest element of the wealth of Australasia.

Humble beginnings of stock breeding.

The beginnings of pastoral enterprise in the Colony were very humble. The whole stock of the community which accompanied Captain Phillip comprised only 1 bull, 4 cows, 1 calf, 1 stallion, 3 mares, 3 foals, 29 sheep, 12 pigs, and a few goats; and although the whole of the present flocks and herds of Australasia have not sprung from these animals alone, it will be seen on how small a scale the business of stock-raising was first attempted. No sys-

tematic record of the arrival of stock seems to have been kept in the early days of settlement, but it appears that in the period between Governor Phillip's landing and the year 1800 there were some slight importations, chiefly of sheep from India.

Increase of live-stock.

In the last-mentioned year the stock in Australasia of the various kinds was—6,124 sheep, 1,044 cattle, 203 horses, and a small number of swine, the precise figures not being obtainable; in 1891 the numbers had increased to 124,547,937 sheep, 11,861,330 cattle, 1,785,835 horses, and 1,154,553 swine.

The following figures give the number of stock in the Colonies at various epochs ending with 1851 :—

Year.	Sheep.	Cattle.	Horses.	Swine.
1792	105	23	11	43
1800	6,124	1,044	203	4,017
1810	33,818	11,276	1,114	8,992
1821	290,158	102,939	4,564	33,906
1842	6,312,004	1,014,833	70,615	66,086
1851	17,326,021	1,921,963	166,421	121,035

The progress since 1861 is illustrated in the following table :—

Year.	Sheep.	Cattle.	Horses.	Swine.
1861	23,741,706	4,039,839	459,970	362,417
1871	49,773,584	4,713,820	782,558	737,477
1881	78,063,426	8,709,628	1,249,765	903,271
1891	124,547,937	11,861,330	1,785,835	1,154,553

Live stock per inhabitant.

The numbers of each class of stock per inhabitant at the same periods were :—

Year.	Sheep.	Cattle.	Horses.	Swine.
1861	18·8	3·2	0·4	0·3
1871	25·3	2·4	0·4	0·4
1881	27·7	3·1	0·4	0·3
1891	31·8	3·0	0·5	0·3

It will be seen that during 1861 there were 18·8 sheep for every person in the Colonies, increasing in 1891 to 31·8. On the other hand cattle had decreased from 3·2 per inhabitant at the former period to 3·0 in the latter. The breeding of horses and swine had about kept pace with the population.

SHEEP.

Country suitable for sheep.

The suitability of the land discovered in the early days of New South Wales for pastoral pursuits was undoubtedly the means of leading the infant Colony to take its first step on the path of commercial progress; and it is not a little surprising at this distance of time how steadily some of the settlers, in the face of the almost insurmountable difficulty of transport which existed a century ago, availed themselves of the opportunities at their disposal. The importation of valuable specimens of sheep from England or the Cape of Good Hope, prior to the introduction of steam, was at all times attended with great risk, and it frequently happened that many of these costly animals died during the tedious voyage. These enterprises were, however, on the whole successful, and thus the flocks and herds of the colonists surely, if at first slowly, increased and multiplied.

Captain Macarthur promotes wool-growing.

By the year 1795, Captain Macarthur, one of the first promoters of sheep-breeding in New South Wales, had accumulated a flock of 1,000, which were held in great estimation, and gradually increased in value, until, as recorded by an entry in his journal ten years later, the market price of a fat wether had risen to £5. Not satisfied with the natural increase of his flocks, Macarthur sought to improve the quality of his fleeces, by which means he could see opening before him the promise of great wealth, and the prospect of establishing important commercial relations with Great Britain. With these ends in view, he procured from the Cape of Good

Hope, at great cost and trouble, a number of superior rams and ewes. A happy circumstance occurred which favoured his enterprise; for he had the good fortune to secure possession of three rams and five ewes of very fine Spanish breed, which had been presented by the King of Spain to the Dutch Government. These animals, out of a total of twenty-nine purchased at the Cape, arrived in Sydney in 1797, and were disposed of to various breeders. With the exception of Macarthur, however, those who had secured sheep of the superior breed made no attempt to follow up the advantage, being probably amply satisfied with the larger gains from the sale of an increased number of animals. Macarthur, on the other hand, thought little of present profits, and still less of breeding entirely for human consumption. He attentively watched the results of crossing his imported rams with the old stock, and by systematically selecting the finer ewes which were the offspring, for further mingling with the sires, he gradually improved the strain, and in a few years obtained fleeces of very fine texture which met with the ready appreciation of English manufacturers. It has been asserted that Macarthur was not the first to introduce merino sheep into Australia; but whether this be so or not, there is no doubt that to him is due the credit of having been the first to prove that the production of fine wool could be made a profitable industry in this Colony.

Improvement of the flocks.

Prior to the present century the production of the finest wool had been confined chiefly to Spain, and woollen manufactures were necessarily carried on in England upon a somewhat limited scale, which was not likely to improve in face of certain restrictions the operatives endeavoured to place upon their employers. These men, in support of their contention that the woollen trade could not be expanded, on account of the limited supply of the raw material, argued that fine wool was obtainable only in Spain; and it was at this favourable period that Macarthur arrived in England with specimens of the wool obtained from his finest sheep, conclusively proving the capabilities of Australia as

Spain formerly chief wool-grower.

a wool-producing country. In this way he opened up a small trade with English manufacturers, which, as Australasian wool rose in public estimation, gradually increased until it reached its present enormous dimensions. During his visit to England, Macarthur purchased an additional stock of ten rams and ewes of the noted Spanish breed, nearly equal in quality to those which in 1797 he had procured from the Cape of Good Hope. That these animals were the finest obtainable in Europe may be gathered from the fact they also had formed portion of a present from the King of Spain to George III. Thus did Macarthur, after his return to New South Wales, patiently continue for many years the process of selection, with such success, that in 1858, when his flock was finally dispersed, it was estimated that his superior ewes numbered fully 1,000. Victoria secured a considerable portion of Macarthur's flock, and the process of breeding proceeded simultaneously in that and other adjacent Colonies.

Trade opened up with Great Britain.

Although the increase in the numbers of the finer sheep was satisfactory, the importation of superior stock was not discontinued, and the stock of the Colonies was augmented in 1823 and 1825 by the further introduction of Spanish sheep. Sheep-breeding was about this period commenced in the Mudgee district, and the climate of that region has produced a still more favourable result upon the quality of the fleeces than any other part of the Colony, and it was thence that the finest merinos were for a long time procured. As might have been anticipated, the climate has in some respects changed the character of the Spanish fleece. The wool has become softer and more elastic, and while having diminished in density it has increased in length, so that the weight of the fleece has only slightly altered. The quality of the wool has thus on the whole improved under the beneficial influence of the climate, and if no further enhancement in its value can be reasonably hoped for, there is at least every reason to believe that Australasian wool will maintain its present high standard of excellence.

Importation of sheep.

Texture of wool.

Sheep in each Colony.

The following table shows the number of sheep at the close of 1861 and 1891 for each Colony; also, the annual increase per cent. in comparison to that of the population :—

Colony.	1861.	1891.	Annual Increase from 1861 to 1891.	
			Sheep per cent.	Population per cent.
New South Wales.....	5,615,054	61,831,416	8·3	4·0
Victoria	6,239,258	12,928,148	2·5	2·5
Queensland	4,093,381	20,289,633	5·4	8·9
South Australia.....	3,038,356	7,745,541	3·2	3·1
Western Australia	279,576	1,962,212	6·7	3·9
Tasmania	1,714,498	1,662,801	*0·1	1·6
New Zealand	2,761,583	18,128,186	6·5	6·3
Australasia.....	23,741,706	124,547,937	5·7	3·8

*Decrease.

Progress of sheep-breeding.

Tasmania is the only Colony of the group in which the business of sheep-breeding has not advanced since 1861, though, strange to say, it is singularly well adapted for sheep raising, and its stud flocks are well known and annually drawn upon to improve the breed of sheep in the other colonies. In all the other provinces there has been a material increase, except in the case of Queensland, where the proportion of sheep has declined as compared with the population. There has been a very substantial increase in the number of sheep depastured in that Colony during the period covered by the table, but the population has progressed at a rate even more rapid. In South Australia the area adapted to sheep is limited, and no great expansion in sheep-farming can be looked for. As regards Victoria, the important strides made by that province in agriculture and kindred pursuits, afford sufficient explanation of the slow rate at which its flocks are increasing.

Proportion of sheep in each Colony.

The following statement shows the proportion of sheep in each Colony to the total flocks of Australasia. In 1861 out of every 100 sheep New South Wales depastured 23·7, while, in 1891, the proportion had increased to 49·5, or little short of one-half the total flocks. New Zealand came second, with 16·3 per cent. With the exception of

LIVE-STOCK_SHEEP

Printed at the Department of Lands, Sydney, N.S.W. 1893
No. of Lithograph D. 83-7

the two Colonies named, and of Western Australia, whose flocks are small, the proportion of sheep depastured in each Colony to the total number of sheep in Australasia was less in 1891 than it had been in 1861 :—

Colony.	1861.	1891.
	Per cent.	Per cent.
New South Wales	23·7	49·5
Victoria	26·3	10·4
Queensland	17·2	16·3
South Australia	12·8	6·1
Western Australia	1·2	1·6
Tasmania	7·2	1·3
New Zealand	11·6	14·8
Australasia	100·0	100·0

Value of sheep in Australasia.

The value of the sheep depastured in Australasia at the beginning of 1892 may be set down at £46,602,000, thus distributed among the various provinces :—

	£
New South Wales	20,868,000
Victoria	5,171,000
Queensland	6,340,000
South Australia	2,711,000
Western Australia	711,000
Tasmania	831,000
New Zealand	9,970,000
Australasia	£46,602,000

CATTLE.

Cattle in Australasia.

Except in Queensland cattle breeding is secondary to that of sheep. In New South Wales the industry does not occupy so important a position as it formerly did, the decline being nearly 10 per cent. since 1861, or at the rate of 0·3 per cent. per annum. The lowest point was reached in 1885, when the herds only numbered 1,317,315, the result partly of continuous bad seasons, but principally of the more profitable character of sheep-farming, which induced graziers on many runs to substitute sheep for cattle. Since that period the improvement has been gradual, and, though small, would seem to indicate a disposition on the part of

pastoralists in some parts of the Colony to devote more attention to cattle-breeding. The progress of Victoria in this direction has been steady; but although the total number of cattle was nearly three times as great in 1891 as it was 30 years ago, the relative position occupied by the Colony remains much the same as in 1861 in regard to the proportional number of cattle depastured in the province. Queensland has largely increased her herds, and now possesses 52·2 per cent. of the total cattle of the whole group. New Zealand and Western Australia—especially the former—show decided improvement, and the breeding of this class of stock seems to be greatly in favour in those Colonies.

Number of cattle.

The following table shows the number of cattle in 1861 and 1891, with the yearly increase or decrease per cent. for the whole period, as well as the growth of the population :—

Colony.	1861.	1891.	Increase or Decrease per cent. per annum, 1861-1891.	
			Cattle.	Population.
New South Wales	2,271,923	2,046,347	*0·3	4·0
Victoria	628,092	1,812,104	3·6	2·5
Queensland	560,196	6,192,759	8·3	8·9
South Australia	265,434	676,933	3·2	3·1
Western Australia	33,795	133,690	4·7	3·9
Tasmania	87,114	167,666	2·2	1·6
New Zealand	193,285	831,831	4·8	6·3
Australasia	4,039,839	11,861,330	3·6	3·8

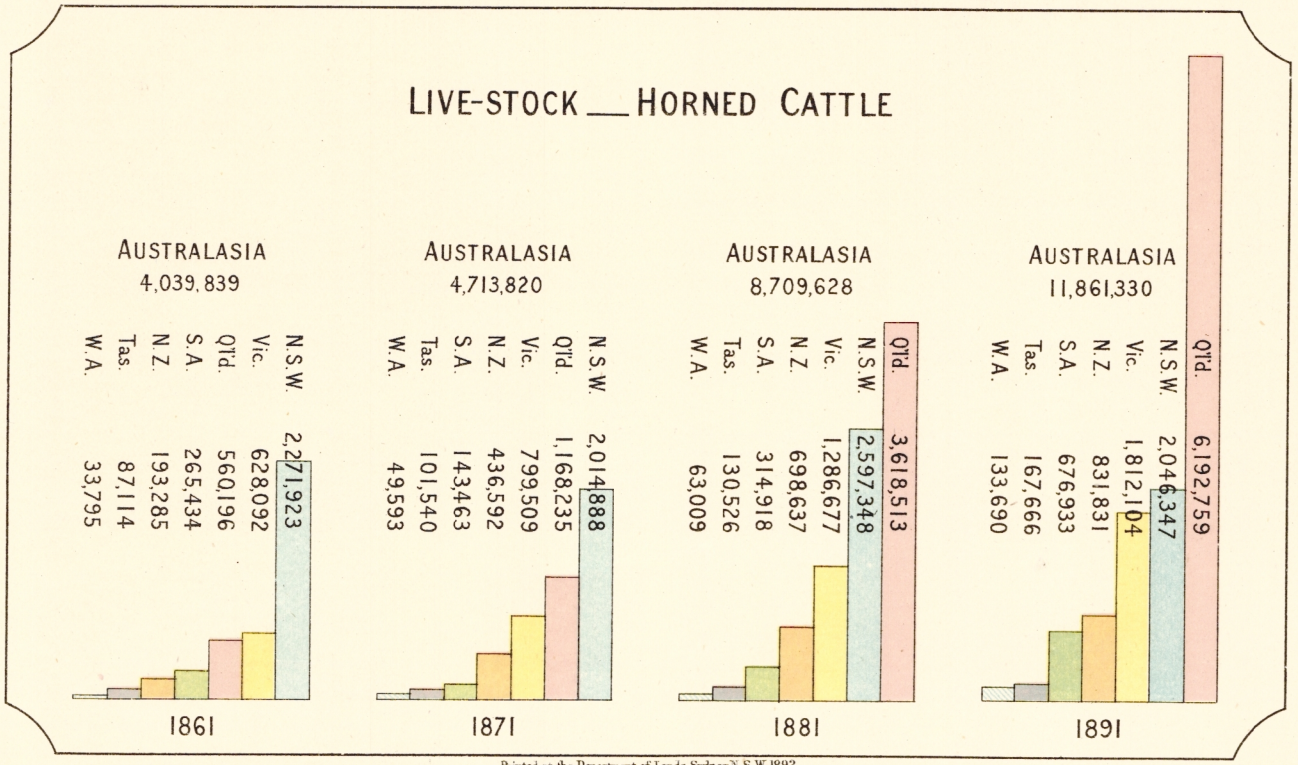
* Decrease.

Value of cattle.

The value of the cattle in Australasia at the beginning of 1892 may be set down at £55,139,000, thus divided amongst the various provinces :—

	£
New South Wales	11,940,000
Victoria	10,873,000
Queensland	21,675,000
South Australia	3,385,000
Western Australia	769,000
Tasmania	1,090,000
New Zealand	5,407,000
Australasia	£55,139,000

LIVE-STOCK — HORNED CATTLE



Printed at the Department of Lands, Sydney, N. S. W. 1893
N° of Lithograph D.93.9

HORSES.

Horse-breeding.

Australasia is eminently fitted for the breeding of most descriptions of horses, and attention has long been directed to this industry. At an early period the stock of colonial bred horses was enriched by the importation of some excellent thoroughbred Arabians from India; and the high name which was acquired by the horses of Australasia was largely due to this cause. The abundance of good pasture everywhere obtainable also contributed to this result. The native kangaroo-grass, especially when in seed, is full of saccharine matter, and young stock thrive excellently upon it. This abundance of natural provender allowed a large increase in the stock of the settlers, which would have been a great advantage, had it not been that the general cheapness of horses led to a neglect of the canons of breeding. In consequence of the discovery of gold, horses became very high priced. Under ordinary conditions this circumstance would have been favourable to the breed of horses, and such was the case in Victoria. In New South Wales it was far otherwise. The best of the stock of that Colony, including a large proportion of the most valuable breeding mares, was taken by Victoria, with the result that for twenty years after the gold rush the horses of New South Wales greatly deteriorated. One class of stock only escaped. The thoroughbred racer was probably improved both by the importation of fresh stock from England, and by the judicious selection of mares.

Excellence of native grasses.

Partial deterioration of stock.

Saddle and harness horses.

Endurance of Australasian horses.

The Colonies are specially adapted for the breeding of saddle and light-harness horses, and it is doubtful whether these particular breeds of Australasian horses are anywhere surpassed. The bush horse is hardy and swift, and capable of making very long and rapid journeys, when fed only on the ordinary herbage of the country; and in times of drought, when the grass and water have become scanty, these animals often perform astonishing feats of endurance. Generally speaking, the breed of horses is improving,

owing to the introduction of superior stud horses and the breeding from good mares. Where there has been a deterioration in the stock, this has been due to breeding from weedy mares for racing purposes and from the effect of droughts.

Demand for horses for India.

Although the demand in India is fair, and Australia is a natural market from which supplies may be derived, the speculation of sending horses there is one open to many risks, as, apart from the dangers of the voyage, there is always an uncertainty as to the stock being accepted. Owing, therefore, to the limited foreign demand, it has not been found advantageous to breed horses for any but local requirements.

Foreign demand for horses limited.

Number of horses in Australasia.

The following table shows the number of horses in each Colony for 1861 and 1891, also the proportion in each case to the total at each period. In 1861, New South Wales possessed 50·7 per cent. of all the horses in Australasia, Victoria being second, with 18·3 per cent. In 1891, New South Wales still held the leading position as regards numbers, but her proportion to the whole had fallen to 26 per cent. Queensland and New Zealand exhibit the most relative progress, having increased their respective proportions of the total from 6·3 and 6·2 per cent. in 1861 to 22·5, and 11·9 per cent. in 1891. The numbers and proportion for each Colony were :—

Colony.	Number.		Percentage of each Colony to total of Australasia.	
	1861.	1891.	1861.	1891.
New South Wales...	233,220	459,755	50·7	26·0
Victoria	84,057	440,696	18·3	24·9
Queensland.....	28,983	399,364	6·3	22·5
South Australia.....	52,597	202,906	11·4	10·6
Western Australia...	10,720	40,812	2·3	2·3
Tasmania	22,118	31,262	4·8	1·8
New Zealand	28,275	211,040	6·2	11·9
Australasia	459,970	1,785,835	100·0	100·0

The value of horses in the various Colonies is estimated as follows :—

Colony.	Value.
	£
New South Wales	4,598,000
Victoria	4,407,000
Queensland	3,195,000
South Australia	2,029,000
Western Australia	408,000
Tasmania	326,000
New Zealand	2,532,000
Australasia	17,495,000

Flocks and herds of the world.

The following table gives the flocks and herds of each of the great divisions of the globe, the returns are the latest available, and are based on figures given in the report of the Statistician to the American Department of Agriculture :—

	Cattle.	Horses.	Sheep.	Swine.
Europe	104,166,000	34,865,000	214,499,000	46,152,000
Asia	70,850,000	4,443,000	71,669,000	417,000
Africa	8,203,000	721,000	60,820,000	840,000
America	117,249,000	21,920,000	143,581,000	53,974,000
Australasia	11,861,000	1,786,000	124,548,000	1,155,000
Total	312,329,000	63,735,000	615,117,000	102,538,000

STOCK CARRYING CAPACITY OF AUSTRALASIA.

Capacity of the Colonies to carry stock.

None of the Colonies are stocked to their full capacity, while in the large territory of Western Australia, and the Northern territory of South Australia, the process has only begun. A clear idea of the comparative extent to which each Colony is stocked cannot be given unless the different classes of stock are reduced to a common value. Assuming, therefore, that one head of large stock is equivalent to ten sheep, and stating cattle and horses in terms

of sheep, it will be found that the number of acres per sheep for each Colony is as follows :—

Colony.	No. of acres per sheep.
New South Wales	2·3
Victoria	1·6
Queensland	5·0
South Australia	35·0
Western Australia	183·0
Tasmania	4·6
New Zealand	2·3
Australasia	7·8

Limit of production not yet reached.

The most closely stocked Colony is Victoria, with 1·6 acres per sheep, but this is by no means the limit of the carrying capacity of that province. On the contrary, there is still a considerable tract yet to be brought under the sway of the pastoralist. Neither New Zealand nor New South Wales, with 2·3 acres per sheep, can be said to have reached their full carrying capacity. If the present average of New South Wales be taken as the possible limit to which Australasia may be stocked, then there is room in these Colonies for 600 million of sheep, or 60 million cattle more than now depastured. That Australasia can carry 1 sheep to 2·3 acres is an improbable supposition. In almost every Colony the best land is under occupation, and the demands of the farmer must diminish the area at present at the disposal of the grazier. This will more especially prove true in regard to Victoria, New Zealand, and Tasmania. On the other hand, by resisting the temptation to overstock inferior country, and by increasing the natural carrying capacity by water conservation and irrigation, and the artificial cultivation of grasses, the Colonies where agriculture has made most progress will be able to carry stock in even larger numbers than they have hitherto attempted. Taking all circumstances into consideration it may be fairly estimated that under the present system the Colonies are capable of maintaining, in ordinary seasons, stock equivalent to 390,000,000 sheep ; that is, about 150,000,000 sheep, or their equivalent in cattle, more than are now depastured.

Stock-carrying capacity of the Colonies.

The number of stock in Australasia, expressed in terms of sheep, the number of acres per sheep, and number of sheep per head of population for the various dates herein mentioned, were :—

Year.	Sheep.	Cattle. In terms of Sheep.	Horses. In terms of Sheep.	Total.	Acres per Sheep.	Sheep per head of Population.
1861	23,741,706	40,398,390	4,599,700	68,739,796	29·4	54·3
1871	49,773,584	47,138,200	7,825,580	104,737,364	19·3	53·2
1881	78,063,426	87,096,280	12,497,650	177,657,356	11·4	62·9
1891	124,547,937	118,613,300	17,858,350	261,019,587	7·8	67·4

Value of Pastoral property.

The total value of pastoral property, that is, improvements, plant, and stock, was estimated at the beginning of 1892 at £249,736,000, and of this large sum £152,068,000, or over one-half, belonged to New South Wales. In the amount quoted the value of stock alone (excluding swine), comes to about £119,236,000. No account is here taken of the value of land devoted to pastoral purposes, for, though much purchased land is used for depasturing stock, the larger area comprises lands leased from the State, so that a statement which omitted to take into account the value of the State lands would be misleading. The annual return from pastoral pursuits was £38,228,000, the share of each Colony in the total production being in 1891–92 :—

New South Wales	£14,725,000
Victoria	6,283,000
Queensland	6,616,000
South Australia	2,380,000
Western Australia	532,000
Tasmania	735,000
New Zealand	6,957,000
Australasia	£38,228,000

Dairy cattle not included.

The products of dairy cattle and swine are not included in the foregoing statement, the figures being given in another place. It should be understood that the values quoted are those at the place of production. The value of the return from each class of stock may be approximately reckoned as follows :—

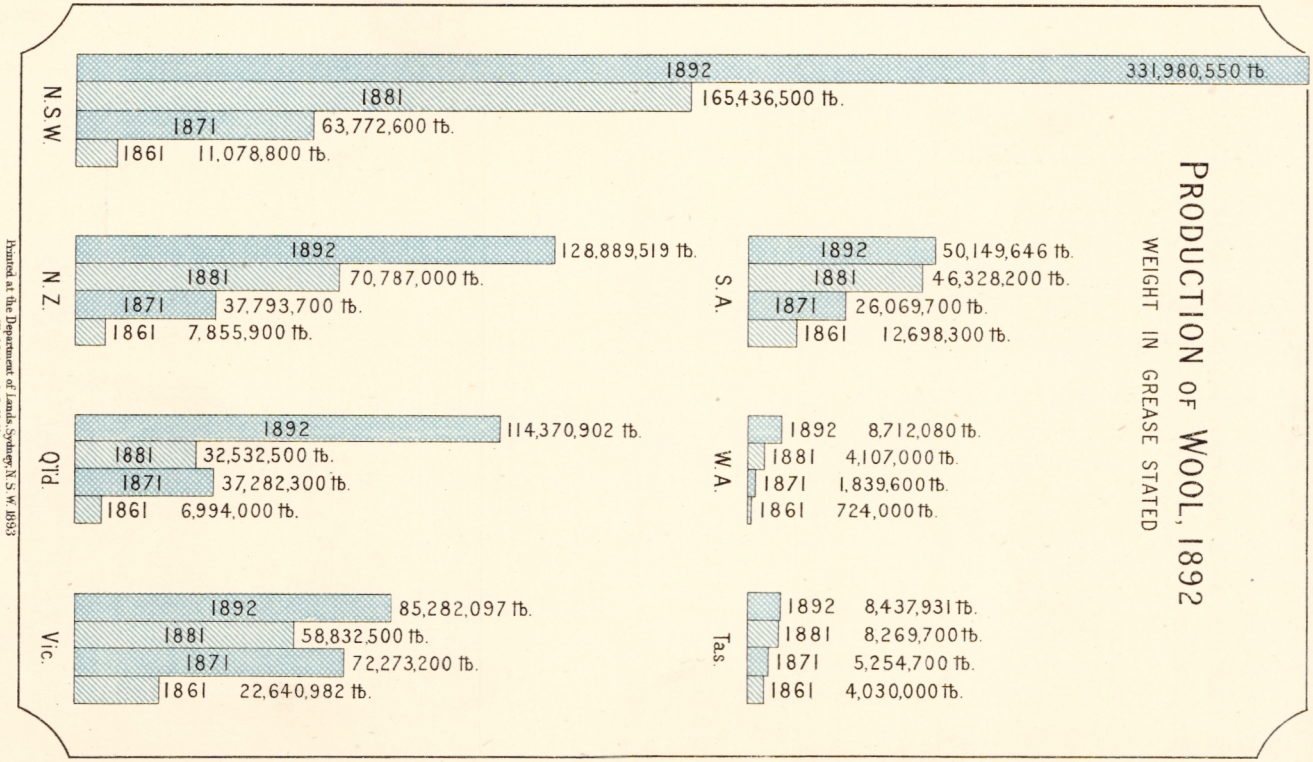
Sheep	£28,543,000
Cattle	6,550,000
Horses	3,135,000
	£38,228,000

Export of Wool.

As might be supposed the greater part of the value of stock returns is due to wool. Thus, out of the £38,228,000 quoted above, £22,253,000 is the value of wool, viz.:—£22,037,750 for wool exported, and £215,250 for wool used locally. The wool export of the Australasian Colonies during 1891 was 707,010,242 pounds weighed in the grease, the export value being £24,591,324—that is to say, £2,553,574 more than the figures shown above. The excess represents the cost of freight, handling, and brokerage between the sheep-walks and the port of shipment.

Export of wool in the grease.

The quantity and export value of the wool clip in the grease is given for each Colony in the subjoined table for 1881 and 1891. The values of the clip for the latter year for South Australia and Tasmania do not compare favourably with those of 1881; all the other Colonies show an improvement both in quantity and value of the clip, but this increase was relatively greatest in Queensland, New Zealand, and New South Wales, in the order named. New South Wales maintains its high position as a wool producer, nor can it be denied that in New Zealand sheep-breeding is a flourishing concern, for though the number of sheep in 1891 was not largely in excess of that in 1885, this is mainly due to the heavy demand upon the resources of the province for the



Printed at the Department of Lands, Sydney, N.S.W. 1893
N° of Lithograph D 32 12

supply of stock to meet the requirements of the London market in regard to frozen mutton.

Colony.	Weight of clip in grease.		Values.	
	1881.	1891.	1881.	1891.
	lb	lb	£	£
New South Wales	165,436,500	353,704,668	7,175,200	10,927,487
Victoria	58,832,500	79,777,765	2,562,800	3,792,938
Queensland	32,532,500	89,069,525	1,331,900	3,453,548
South Australia	46,328,200	49,751,143	1,573,300	1,540,079
Western Australia	4,107,000	8,783,073	256,700	329,365
Tasmania	8,269,700	9,378,173	498,400	418,460
New Zealand	70,787,000	116,553,895	2,910,600	4,129,447
Australasia	386,293,400	707,018,242	16,308,900	24,591,324

Value of the wool clip.

The value of the clip of the year 1892 at the port of shipment was £24,169,970, and the weight, 674,285,057 lb.; of greasy, 567,209,721 lb.; of washed or scoured wool, 107,075,336, equivalent to about 727,822,725 lb., if all were exported in grease. Of this quantity, 490,541,376 lb. of greasy or washed was despatched to London, and 183,743,681 lb. to other European ports and to America. The British trade returns show that during the twelve months ended March, 1893, 491,892,542 lb. of Australasian wool, valued at £18,236,303, were imported into Great Britain, figures closely approximating to those just given, and demonstrating the correctness of the export returns of these Colonies.

Price of wool in grease.

The average price per lb. obtained for wool in grease, at the London Wool Sales, for the five series during each year from 1885, for the principal producing Colonies was:—

Year.	New South Wales. (Merino).	Victoria. (Merino).	New Zealand. (Cross-bred.)
	d.	d.	d.
1885	8¼	10⅜	8¾
1886	8¼	10½	9¼
1887	9⅜	10⅝	9¾
1888	8¾	10½	9¼
1889	10	11½	10
1890	10	11¾	10¼
1891	8¾	11¾	10¼
1892	7¾	11	9½

New South Wales wool exported *via* Melbourne.

It will be noticed that Victorian wool averages a little more than 2d. per lb. higher than New South Wales wool. The figures must be taken with qualification. Much of the New South Wales wool, the product of the Riverina districts, is exported *via* Melbourne, and sold as Port Phillip wool, and brings a price considerably in excess of the average given in the table for the Colony of which it is the produce.

Disposal of the surplus sheep.

In view of the large increase of stock which a succession of favourable seasons has brought to the flock masters of Australasia the question of the disposal of the surplus cast has become a matter of very serious consequence. In New South Wales especially, and in the Riverina district in particular, it was found necessary to have recourse to the old method of boiling down, which a fortunate rise in the price of tallow has made it possible to carry on with a margin of profit. In New Zealand, however, a much better solution has been found, and a trade in frozen mutton with the United Kingdom has been established on a thoroughly payable basis. The first successful attempt at

Frozen meat.

shipping frozen mutton to England was made in New Zealand in 1882, and since then the trade has attained great proportions, to the immediate benefit of the Colonial producer as well as to that of the English consumer. The trade initiated by the New Zealand Land Company has been extended by the formation of numerous joint stock companies, which now own twenty-three meat freezing works in the two islands, having an aggregate capability for freezing about 4,000,000 sheep per year. In New Zealand the sheep are generally killed up country, and transported by rail to the freezing works. Three fleets of steamers are engaged in the trade, and the freight rates charged enable the companies to realise satisfactory profits. The example of New Zealand is now being followed by the continental provinces, and by New South Wales in particular; the following figures will show how the trade is being extended:—In 1881 the value of the trade done by New Zealand was only £22,391, or 6 per cent. of that of Australasia; in 1891 it had increased to

£1,316,848, or 73·5 per cent. of the total. New South Wales and Queensland are the principal exporters in this trade after New Zealand, the value of export being £197,916 for New South Wales, and £246,871 for Queensland. In 1881 New South Wales and Victoria exported meat to the total value of £304,909; in 1891 their joint export had decreased to £218,312, two-thirds of the decrease being due to Victoria. A revival of this industry may, however, be looked for in the near future.

Quantity and value of meats exported.

The following table shows the quantity of fresh and preserved meats exported, the produce of each Colony, in 1881 and 1891 :—

Colony.	Quantity.			
	1881.		1891.	
	Fresh and Frozen.	Salt and Preserved.	Fresh and Frozen.	Salt and Preserved.
	Cwt.	Cwt.	Cwt.	Cwt.
New South Wales...	17,740	62,094	106,810	68,192
Victoria	8,136	35,947	110	10,486
Queensland.....	.....	22,051	106,307	80,639
South Australia.....	22	746	940	2,131
New Zealand	....	9,595	998,277	61,490
Australasia.....	25,898	130,433	1,212,444	222,938

The seriousness of the question of the disposal of the surplus cast may be grasped when it is understood that, apart from New Zealand, there is a surplus of from 60,000 to 100,000 head of cattle, and 4,500,000 sheep, which in any ordinary year could be exported without trenching upon the local requirements, while if a satisfactory trade were opened up the surplus could be made much larger.

DAIRY-FARMING.

Progress of dairy-farming.

Dairy-farming has of late years made fair progress in Australasia, especially in New South Wales, Victoria, and New Zealand. The introduction of the factory system at convenient centres, and the use of the cream separator, have done much to cause the extension of this industry. The number of dairy cows and the

estimated quantity of milk produced by them in each Colony were as follows in 1891 :—

Colony.	Dairy Cows.	Quantity of milk produced (estimated).
	No.	Gallons.
New South Wales.	343,477	123,652,000
Victoria	405,973	146,150,000
Queensland	120,000*	36,000,000
South Australia.	79,864	28,751,000
Western Australia	10,000*	3,600,000
Tasmania	33,687	13,475,000
New Zealand	206,906	82,762,000
Australasia	1,199,907	434,390,000

* Estimated.

The value of the milk and its products, butter and cheese, and of the return obtained from swine, together with the total value of dairy produce for each Colony in 1891 were :—

Colony.	Value of Milk, Butter, and Cheese.	Value of Return from Swine.	Total Value of Dairy and Swine Produce.
	£	£	£
New South Wales	1,684,275	348,675	2,032,950
Victoria	1,916,000	430,000	2,346,000
Queensland	531,375	162,250	693,625
South Australia	396,575	114,800	511,375
Western Australia	53,125	31,350	84,475
Tasmania	196,850	93,025	289,875
New Zealand	1,398,900	405,150	1,804,050
Australasia	6,177,100	1,585,250	7,762,350

Butter and cheese.

The production of butter and cheese for 1891 in each Colony is estimated to have been as follows :—

Colony.	Butter.	Cheese.
	lb.	lb
New South Wales	18,363,000	5,506,000
Victoria	23,582,000	5,748,000
Queensland	6,701,000	1,986,000
South Australia	2,948,000	416,000
Western Australia	310,000	58,000
Tasmania	2,414,000	650,000
New Zealand	16,310,000	6,976,000
Australasia	70,628,000	21,340,000

The Colonies having a surplus of butter and cheese available for exportation are shown in the following table :— Export of butter and cheese.

Colony.	Quantity.	
	Butter.	Cheese.
	lb.	lb.
Victoria	4,337,534	82,621
South Australia	.....	547,065
New Zealand	4,416,160	4,451,664
Total	8,753,694	5,081,350

New South Wales is in the anomalous position of being both an importer and an exporter ; this is explained by the circumstance that only during the spring and early summer months is the production larger than the local requirements ; in other months it is less, hence the necessity of importations, which are made chiefly from New Zealand. The balance of trade is, however, in favour of imports.

The Colonies which, on the other hand, are obliged to import butter and cheese are shown below :— Import of butter and cheese.

Colony.	Quantity.	
	Butter.	Cheese.
	lb.	lb.
New South Wales	838,296	158,463
Queensland	303,608	965,878
South Australia	401,779	.....
Western Australia	546,744	186,693
Tasmania	267,090	5,377
Total	2,357,517	1,316,411

From the foregoing figures it will be seen that those Colonies which produce a surplus of butter and cheese have, after providing for the deficiency of the other provinces, a balance available for exportation. The quantity in 1891 amounted to 6,396,178 lb. butter, and 3,764,939 lb. cheese, valued at £213,200 and £63,000 respectively. An export trade in butter and cheese Butter and cheese for export.

has long been maintained from New Zealand, but since 1890 Victorian and New South Wales butter has been sent to the London market, and its very favourable reception there gave a fresh stimulus to the dairying industry in those Colonies. The rapidity with which this trade is growing may be gauged from the following table, which shows the quantity and value of butter exported to the United Kingdom during the years 1890 and 1891 :—

Colony	1890.		1891.	
	Quantity.	Value.	Quantity.	Value.
	lb	£	lb	£
New South Wales	589,160	18,914	391,180	17,278
Victoria	1,286,583	47,516	3,778,775	186,437
South Australia	10,850	326	23,864	1,150
New Zealand	2,976,848	92,646	3,246,768	106,446
Australasia	4,863,441	159,402	7,440,587	311,311

Progress of the industry.

The increase in trade for one year only, in the provinces of Victoria and New Zealand, is certainly remarkable. New South Wales appears to have been lagging behind the other Colonies but the force of the example was not lost upon the province, for in the following year, 1892, the direct butter trade from New South Wales to the United Kingdom suddenly increased from 391,180 lb. to 1,532,782 lb. in weight, and from £17,278 to £63,129 in value.

British market for dairy produce.

From latest advices it would appear that the price obtained for Australian butter in London, was higher than the rates ruling in the local market, and as there can hardly be a limit placed to the capacity of Australasia to produce butter and cheese, it is probable that these high prices will have the effect of greatly stimulating the dairy industry throughout all these Colonies. In connection with this subject it may be mentioned that the value of the butter, cheese, and eggs imported into the United Kingdom during 1891 was £11,591,183, £4,813,404, and £3,505,522 respectively. The supply is chiefly drawn from the Continent of Europe, and from America.

Breeding of swine.

The breeding of swine is usually carried on in conjunction with dairy-farming. Below will be found a return of the number of swine in each Colony in 1861, and in 1891, together with the proportion owned by each in comparison with the total stock. It will be observed that the actual number owned by the various Colonies has in all cases increased, though the relative proportions have altered considerably. New South Wales, for instance, held over 40 per cent. of the stock of swine in 1861, but in 1891 the proportion had receded to 21·9 per cent., while Victoria, which possessed little less than 15 per cent. in 1861, has now nearly 25 per cent. of the total number. In the same interval New Zealand had increased from nearly 12 per cent. to something over 26 per cent. of the whole:—

Colony.	Number.		Percentage of each Colony to total of Australasia.	
	1861.	1891.	1861.	1891.
	No.	No.	Per cent.	Per cent.
New South Wales	146,091	253,189	40·3	21·9
Victoria	43,480	286,780	12·0	24·8
Queensland	7,465	122,672	2·1	10·6
South Australia	69,286	83,797	19·1	7·3
Western Australia	11,984	25,930	3·3	2·2
Tasmania	40,841	73,373	11·3	6·4
New Zealand	43,270	308,812	11·9	26·8
Australasia	362,417	1,154,553	100·0	100·0

Products of the swine.

The products of the swine—bacon, ham, lard, and salt pork—are still imported by all the Colonies with the exception of South Australia and New Zealand, as is shown in the following table, which relates to the year 1891:—

Colony.	Bacon and ham.	Salt pork.	Lard.	Net value imported.
	£	£	£	£
New South Wales	40,571	12	20	40,603
Victoria	3,588	928	*188	4,328
Queensland	15,034	515	*523	15,026
South Australia	695	242	.....	937
Western Australia	7,097	.....	423	7,520
Tasmania	2,042	30	.....	2,072
New Zealand	*25,182	*3,647	*1,475	*30,304
Australasia	43,845	*1,920	*1,743	40,182

The figures marked (*) show an excess of exports, all the others represent an excess of imports. There seems to be considerable scope for an extension of this particular branch of farming in most of the Colonies.

POULTRY AND MINOR INDUSTRIES.

Poultry, eggs, and honey.

An estimate is given below of the value of the production of poultry and eggs, together with that arising from bee culture. The value of the production in each Colony in 1891 was as follows:—

Colony.	Poultry and Eggs.	Honey and Beeswax.
	£	£
New South Wales	683,000	20,000
Victoria	662,000	30,000
Queensland	242,000	10,000
South Australia	241,000	16,000
Western Australia	30,000	1,500
Tasmania	89,000	4,000
New Zealand	376,000	16,000
Australasia	2,323,000	97,500

The most remarkable feature is the trade in eggs between South Australia as supplier and Victoria and New South Wales as buyers. The figures for 1891 show that during that year South Australia exported eggs to the value of £48,544, viz., £21,230 to Victoria, £26,606 to New South Wales, and £708 to Western Australia. The bulk of the New South Wales trade was done with the Barrier district, which is commercially a dependency of South Australia.

MINERAL RESOURCES.

ALMOST all the principal metals of economic value are found in Australasia, and many are common to several Colonies. In dealing with the occurrence and value of mineral deposits, the classification into noble metals, metallic minerals, carbon minerals, soluble and insoluble salts, diamonds and other gem stones, has been adopted.

NOBLE METALS.

Gold, the most valuable of noble metals, is found throughout Australasia, and the present prosperity of the Colonies is largely due to gold discoveries, the development of other industries being, in a country of varied resources, a natural sequence to the acquisition of mineral treasure. Gold.

Settlement in Australia was still young when many-tongued rumour spoke of the existence of gold, but it was not until the 16th February, 1823, that the Government was officially apprised of a discovery destined to be the precursor of a prosperity seldom surpassed in the history of nations. On the date mentioned Mr. Assistant-Surveyor M'Brien reported that, at a spot on the Fish River, about 15 miles east of Bathurst, he had discovered gold. Mention is made, in the early records of New South Wales, of several other finds, but it remained for Count Strzlecki and the Rev. W. B. Clarke to demonstrate the existence of the precious metal in payable quantities, and to assert their belief in its abundance, an opinion strongly supported in England by several eminent authorities, and substantiated by Hargraves' discovery in the year 1851. The gold-fields of Lewis Ponds and Summer Hill Creek had hardly been opened up when, on the day that witnessed Discovery of gold.

the severance of the Port Phillip district from the mother Colony of New South Wales, Mr. J. M. Esmond discovered gold in Victoria. Shortly afterwards, a rush set in for Ballarat, and the gold fever took possession of Australia. The following year (1852) saw gold found in South Australia and Tasmania; the rush to Canoona, in what is now Queensland, took place in 1858; and gold was also discovered in New Zealand in the same year, though it was not until 1861 that a large population was, by the prospect of rapidly obtained wealth, attracted to the last-mentioned Colony.

Gold in Western Australia.

In Western Australia gold was first found in 1868, although it was not until 1887 that any diggings of importance were discovered. The richest field is at the Yilgarn Hills, 200 miles east of Perth, which has yielded to the end of July, 1892, 29,800 oz. valued at £109,130. Until quite recently this Colony was considered to be destitute of mineral deposits of any value, but now it is known that a rich belt of mineral country extends from north to south. The Kimberley gold-field, in the north-eastern portion of the Colony, is considered likely to become an important reefing district, as the lodes are rich and easily worked.

Value of gold raised.

The following table gives the value of gold raised from the commencement of mining in the various Colonies to the beginning of the year 1892, and the proportion due to each :—

Colony.	Value.	Proportion of value raised by each Colony.
	£	Per cent.
New South Wales	38,633,488	11·1
Victoria	229,787,892	66·0
Queensland	28,052,199	8·0
South Australia	1,295,297	0·4
Western Australia	720,717	0·2
Tasmania	2,388,499	0·7
New Zealand	47,433,117	13·6
Australasia	348,311,209	100·0

During the year 1892 gold valued at £569,178 was won from the New South Wales mines.

Effect of gold discovery in Victoria.

It will be readily understood from the foregoing figures how Victoria, although in area the smallest of the group, with the exception of Tasmania, achieved the foremost position amongst the Colonies, and retained that place so long as the powerful attraction of gold continued ; but as the alluring dazzle of the gold-seeker's life was gradually dimmed by privation and frequent disappointment, people turned to safer, if less brilliant, fields of employment. Although the discovery of such extraordinary deposits as those of Mount Morgan, in Queensland, may astonish the world, and give princely dividends to shareholders, the thirst for gold—so powerful in the past—cannot now entice any considerable proportion of the population from other pursuits, and this, notwithstanding that only a small portion of the auriferous area of the continent has been explored, and a still smaller portion fully developed.

Progress of gold-mining.

The production of gold, which had been declining steadily for many years, reached the lowest point in 1886. Since then there has been a marked revival, owing chiefly to the increased production of Queensland. It will be seen from the following figures, showing the quantity and value of gold obtained up to the beginning of 1892, that the annual production of Queensland is now almost equal in value to that of Victoria. The returns from South Australia include 98,140 oz., the production of the Northern Territory :—

Colony.	Weight.			Value.	Proportion of value raised by each Colony.
	Alluvial.	Quartz.	Total.		
	oz.	oz.	oz.	£	Per cent.
New South Wales.	52,915	100,421	153,336	558,306	8·9
Victoria	188,548	387,852	576,400	2,305,596	36·7
Queensland	16,021	560,418	576,439	2,017,536	32·1
South Australia ...	.....	.....	35,533	125,529	2·0
Western Australia	.....	.....	30,311	115,182	1·8
Tasmania	6,759	32,444	39,203	149,816	2·4
New Zealand	.....	.....	251,296	1,007,488	16·1
Australasia ...	.....	.....	1,663,218	6,279,453	100·0

Quantity of gold per miner.

The average value of gold to each miner is given below, but, as the conditions under which mining is carried on are by no means the same in every Colony, the figures, which vary considerably, may be somewhat misleading. In those Colonies where a revival of mining has lately been experienced, it is natural to expect a fall in the average yield per miner, for mining, as now carried out, is not an industry from which immediate returns can be expected. It is probable that the number of gold-miners in New South Wales is largely overstated, otherwise the industry must be carried on at a great loss. Most likely many of the men employ themselves in mining for only a portion of their time, and devote the rest to more remunerative pursuits. But when full allowance is made on this score it will be evident that in some Colonies, at least, the search for gold is not a profitable occupation. The following shows the number of miners at work in 1891, with the quantity and value of gold won per man, for those Colonies for which returns are available :—

Colony.	No. of Miners.	Amount won per Miner.	Value per Miner.
		oz.	£ s. d.
New South Wales	11,166	13·73	50 0 0
Victoria	23,763	24·26	97 0 6
Queensland	9,195	62·69	219 8 4
Tasmania	1,056	37·12	141 16 5
New Zealand	12,724	19·80	79 3 7

Yield of quartz.

Attempts have been made to ascertain the average yield from quartz, but the number of tests made and the quantity of stone treated are inconsiderable ; furthermore, it has not been found possible to obtain material from all the principal mining centres. The results obtained for the last five years ending 1891 were as follow. The high average yield for Queensland is due to the Mount Morgan mines, which, for some years, yielded one-third

of the total gold production of the Colony, and in 1891 nearly one-fourth :—

	New South Wales.	Victoria.	Queensland.	Tasmania.
	oz. dwt. gr.	oz. dwt. gr.	oz. dwt. gr.	oz. dwt. gr.
1887	0 9 5	0 9 10	1 15 10	1 5 21
1888	1 0 18	0 9 18	1 14 11	1 5 2
1889	1 0 2	0 9 19	1 17 20	0 17 16
1890	0 15 8	0 9 4	1 7 15	0 16 12
1891	0 18 13	0 9 4	1 3 21	1 5 4

It is not pretended that the above figures have any great statistical value, but they may, nevertheless, be accepted as giving an approximate idea of the average yield of quartz-reefs. Alluvial deposits are generally richer than those in reefs ; but the precious metal is so unevenly distributed that any attempt to obtain a reliable average would be futile.

Deep mines in Victoria.

The greatest development of quartz-reefing is found in Victoria, some of the mines being of a great depth. The ten deepest mines at the close of 1891 were as follows :—Lansell's, at Sandhurst, 2,640 feet; New Chum and Victoria Company, 2,448 feet; Magdala-Moonlight, 2,409 feet ; North Old Chum Company, 2,310 feet; Victorian Quartz, 2,302 feet; Victory and Pandora, 2,300 feet; Lazarus Company, 2,264 feet; Old Chum, 2,210 feet; "Garibaldi," 2,183 feet; and New Chum Railway, 2,180 feet.

Value of machinery.

The value of machinery on the gold-fields of those Colonies from which returns were obtainable, was during 1891 as given below. For 1892 the value of machinery on the gold-fields of New South Wales was returned at £570,143 :—

Colony.	Value.
	£
New South Wales	574,416
Victoria	1,848,218
Queensland	1,123,046
Tasmania	215,285
New Zealand	395,985

Large nuggets.

A notice of gold-mining would be incomplete without some reference to the remarkably large finds made at various times. Information on this point is meagre, and not altogether reliable, as doubtless many nuggets were unearthed the weight and value of which were never published. Victoria's record is the best, and includes the following nuggets:—

Victorian nuggets.

	lb.	oz.	dwt.
"The Welcome Stranger," found 9th February, 1869...	190	0	0
"The Welcome," found 9th June, 1858	184	9	16
One found at Canadian Gully, 31st January, 1853.....	134	11	0
And others of the following weights	98	1	17
	93	1	11
	84	3	15
	69	6	0
	52	1	0
	30	11	8
	30	11	2

Nuggets found in New South Wales.

New South Wales can boast of having produced some splendid specimens. In 1851 a mass of gold was found on the Turon, weighing 106 lb.; another, from Burrandong, near Orange, produced, when melted at the Sydney Mint, 1,182 oz. 6 dwt. of pure gold; and a third, the "Brennan," was sold in Sydney, in 1851, for £1,156. During 1880–82 several nuggets were discovered at Temora, weighing from 59 to 1,393 oz., and others, of 357, 347 (the "Jubilee"), 200, 47, and 32 oz. respectively, were found during the year 1887 in various parts of the Colony. Veins of gold of extraordinary richness have been worked in New South Wales. In January, 1873, at Beyers and Holterman's claim, at Hill End, 1·02 cwt. of gold was obtained from 10 tons of quartz, and a mass of ore, weighing 630 lb., and estimated to contain £2,000 worth of gold, was exhibited. The Mint returns during the year 1873, for this mine, were 16,279·63 oz., valued at £63,234 12s., obtained from 415 tons of stone. From Krohman's claim, at Hill End, gold, to the value of £93,616 11s. 9d., was obtained during the same year. The foregoing figures are, however, insignificant when compared with the enormous yield of the Mount Morgan Mine, in Queensland, which has already paid nearly £2,750,000 in dividends, and may be designated one of the wonders of the world. It is a huge mound of ore, highly

The Mount Morgan Mine.

ferruginous, and contains gold to the extent of several ounces to the ton, the peculiar formation, in the opinion of the Government Geologist of Queensland, being due to the action of thermal springs.

Platinum and *iridosmine*, though not specially sought for by miners, have been found in New South Wales and New Zealand, but few efforts have been made to ascertain whether either mineral can be extracted with satisfactory commercial results. The same remarks apply to the noble metal *tellurium* which is found in New Zealand, associated with gold and silver (*petzite*) and with silver only (*hessite*). Platinum and Iridosmine. Tellurium.

Silver has been discovered in all the Colonies, either alone or in the form of sulphides, antimonial, and arsenical ores; chloride, bromide, iodide, and chloro-bromide of silver, or argentiferous lead ores, the largest deposits of the metal being found in the last-mentioned form. Silver.

The leading silver mines are in New South Wales, the returns from the other Colonies being comparatively insignificant. Up to the year 1882 the quantity of silver raised in New South Wales was very small, but in that and the following years extensive discoveries of this metal, associated principally with lead and copper ore, were made in various parts of the Colony, notably at Boorook, in the New England district, and, later on, at Sunny Corner, near Bathurst, also at Silverton, and Broken Hill at the Barrier Ranges in the Western district. The Sunny Corner Silver mines in 1886 paid handsome dividends, and produced £160,000 worth of silver, but since that period the yield has largely fallen off. During the year 1891 the Company raised from their mine 35,287 tons of ore and smelted 39,046 tons, the production from which was valued at £104,565. The Company possesses smelting plant to the value of £16,024, and gives employment to 350 men. New South Wales silver mines.

The field of Silverton has proved to be of immense value. Discoveries have been made along the Barrier Range at Broken The Silverton silver mines.

Hill, Umberumberka, The Pinnacle, and many other points. The yield of minerals in the Broken Hill and Silverton districts during 1891 showed a total value of £3,960,677, while the machinery employed is valued at £535,164. The aggregate output of the mines in the Barrier country to the end of 1891 was valued at £10,079,857. This rich silver-field, which was discovered in 1883 by Charles Rasp, a boundary-rider on Mount Gipps Run, extends over 2,500 square miles of country, and has developed into one of the principal mining centres of the world. It is situated beyond the river Darling, and close to the boundary between New South Wales and South Australia. In the Barrier Range district the lodes occur in Silurian metamorphic micaceous schists, intruded by granite, porphyry, and diorite, and traversed by numerous quartz-reefs, some of which are gold-bearing. The Broken Hill lode is the largest as yet discovered. It varies in width from 10 feet to 200 feet, and may be traced for several miles, the country having been taken up all along the line of the lode, and subdivided into numerous leases, held by mining companies and syndicates.

Barrier Ranges and Broken Hill silver-lead mines.

Broken Hill Proprietary Company.

The Broken Hill Proprietary Company hold the premier position. They have erected on their lease a complete smelting plant on the latest and most approved principles, and have enlisted the services of competent managers, whose experience has been gained in the celebrated silver-mining centres of the United States. From the commencement of mining operations in 1885 to the beginning of June, 1892, the Company treated 984,350 tons of silver and silver-lead ores, producing 36,512,445 oz. of silver and 151,946 tons of lead, valued in the London market at £8,252,138. They have paid dividends to the amount of £3,880,000, and bonuses amounting to £592,000, besides the nominal value of shares from the several "Blocks," sold to other Companies, amounting to about £1,744,000, or a total return from the mine of £6,216,000. The sum spent in the erection and construction of plant, from the opening of the property, was £471,322. During the year 3,203 men were employed, of whom 1,686 were engaged

under ground. The net profit for the half-year ending May 31st, 1892, was £906,552. The nominal value of this mine at the end of March, 1893, had declined to £3,292,963, as against six and a half millions at the end of 1890.

The quantity and value of silver and silver-lead ore exported to the end of 1892 from New South Wales is shown in the following table :— Silver and silver-lead ore exported.

Year.	Silver.		Silver Lead.			Total Value.
	Quantity.	Value.	Quantity. Ore.	Quantity. Metal.	Value.	
Up to	oz.	£	Tons cwt.	Tons cwt.	£	£
1882	765,397	187,429	203 12	.....	5,385	192,814
1883	77,066	16,488	105 17	.....	1,625	18,113
1884	93,660	19,780	4,668 1	.....	123,174	142,954
1885	794,174	159,187	2,095 16	190 8	107,626	266,813
1886	1,015,434	197,544	4,802 2	.....	294,485	492,029
1887	177,308	32,458	12,530 3	.....	541,952	574,410
1888	375,064	66,668	11,739 7	18,102 5	1,075,737	1,142,405
1889	416,895	72,001	46,965 9	34,579 17	1,899,197	1,971,198
1890	496,552	95,410	89,719 15	41,319 18	2,667,144	2,762,554
1891	729,590	134,850	92,383 11	55,396 3	3,484,739	3,619,589
1892	350,661	56,884	87,504 15	45,850 4	2,420,952	2,477,836
Total.....	5,291,801	1,038,699	352,718 8	195,438 15	12,622,016	13,660,715

It will be seen that the production of silver in New South Wales has, during the past few years, considerably increased, until that of 1891 exceeded the largest annual production of gold, even in the palmiest days of the diggings. The number of miners engaged in silver and lead mines in 1891 was 7,645, and the average value of mineral won, per miner engaged, amounted to £473 9s. 2d. The lower results shown by the figures for 1892 are due to the stoppage of work for some three months by reason of a general strike amongst the mining hands of the Broken Hill district. Increase in production of silver.

Although indications of silver abound in all the other Colonies, no fields of great importance have yet been discovered. The value Silver in other Colonies.

of the yield of Australasia to the end of 1891, exclusive of that of New South Wales, was only £927,298, of which amount Queensland contributed more than one-half. The leading silver mines of Queensland are south-west of Cairns, in the Herberton district, and it is from these fields that the largest proportion of the total production was raised.

Silver in New Zealand.

In New Zealand silver is found in various localities throughout the Colony, principally in the Te Aroha, Thames, and Coromandel fields, but it is generally worked for in conjunction with gold-mining.

Silver in Tasmania.

The silver-mining industry in Tasmania is steadily developing, principally in the Mount Zeehan and Dundas districts, from which almost the whole quantity produced in the Colony is obtained. In the first-named district, argentiferous lead ore has been found over 30 square miles of country, and the Mount Dundas field, almost adjoining, extends north as far as the Pieman River. The extent of ground taken up in the Zeehan and Dundas districts for silver-mining in 1890 was 87,000 acres. The total area leased for silver-mining in Tasmania during 1891 was 108,327 acres.

Silver in Victoria and Western Australia.

There are no silver mines in Victoria or Western Australia, the small silver production of the former Colony being found associated with gold. The quantity of silver extracted from gold during the year at the Melbourne Branch of the Royal Mint was 30,039 ounces.

Silver in South Australia.

The production of silver in South Australia is very limited, and it is remarkable that the argentiferous lead-ore fields of Broken Hill and Silverton, which are almost on the border of the two Colonies, are exclusively confined within the boundaries of the mother Colony.

Percentage of silver production to each Colony.

Up to the end of 1891 New South Wales had produced over 92 per cent. of the total value of silver raised in Australasia, Queensland followed, with 4·1 per cent., the remaining small proportion being distributed among the other Colonies, New Zealand claiming

the largest share. The total production of silver in Australasia, during 1891, and up to the end of that year, was :—

Colony.	During 1891.		Total production to 31st December, 1891.	
	Value.	Proportion due to each Colony.	Value.	Proportion due to each Colony.
	£	Per cent.	£	Per cent.
New South Wales	3,619,589	97·7	11,302,095	92·4
Victoria	6,008	0·2	94,930	0·8
Queensland	21,879	0·6	498,590	4·1
South Australia	....	.....	101,727	0·8
Western Australia	250	0·0	250	0·0
Tasmania	52,284	1·4	91,653	·8
New Zealand	5,151	0·1	140,148	1·1
Australasia	3,705,161	100·0	12,229,393	100·0

It will be seen that the silver production of the group during 1891 was little less than one-third of the total production of Australasia to the end of that year.

METALLIC MINERALS.

Lead is found in each of the Australasian Colonies, but is worked only when associated with silver. In Western Australia the lead occurs in the form of sulphides and carbonates of great richness, but the quantity of silver mixed with it is very small. The lodes are most frequently of great size, containing huge masses of galena, and contain so little gangue that the ore can be very easily dressed to 83 or 84 per cent. The Government offered £10,000 for the first 10,000 tons of lead smelted in the Colony. Works were erected, but up to the present without success. Western Australia has, since 1845, exported 34,025 tons of lead ore, valued at about £169,250. The chief mining centres for this mineral are in the Northampton district, between Geraldton and Murchison. Lead.

Mercury, in the form of sulphides or cinnabar, is found in New South Wales, Queensland, and New Zealand. Few attempts, Mercury.

however, have been made to ascertain whether the deposits are of sufficient value to warrant the expenditure of capital in this direction.

Copper.

Copper is known to exist in all the Colonies, but has been mined for most extensively in South Australia, New South Wales, and Queensland. The discovery of copper had a marked effect upon the fortunes of South Australia at a time when the young and struggling Colony was surrounded by difficulties. The Kapunda Mine, opened up in 1842, is the oldest copper-mine in South Australia. Unfortunately information regarding the total quantity of ore raised is not available, but the average yearly output has been estimated at 2,000 tons. Three years later than Kapunda the celebrated Burra Burra Mine was discovered. This mine proved to be very rich, and paid about £800,000 in dividends to the original owners. For a number of years the mine has been suffered to remain unworked, partly in consequence of the low price of copper, but principally because the deposits originally worked were found to be depleted. For many years the average yield was from 10,000 to 13,000 tons of ore, yielding from 22 to 23 per cent. of copper. During the twenty-nine and a half years that the mine was worked, the output of ore amounted to 234,648 tons, equal to 51,622 tons of copper, valued at £4,749,224. The Wallaroo and Moonta mines were discovered in 1860 and 1861. Up to the year 1886 these two mines had put out 927,196 tons of ore, valued at £6,609,240. The yield of copper ranged from 10 to 20 per cent. The Moonta Mine at one time employed upwards of 1,600 hands, and up till 1891 employed fully 1,100 men, but shortly after that date the industrial operations were disturbed, owing to labour and other difficulties, which were only terminated during the opening month of 1892.

South Australian copper mines.

Principal copper-mines of New South Wales.

The principal mines in New South Wales are those of Cobar and Nymagee, situated in the centre of the Colony, and within 80 miles of each other. The former at one time employed over 500 men and boys, but is now idle; the deepest shaft is 566 feet, and the

width of the lode from 2 to 50 feet. From the date of the commencement of operations in 1876, that company treated 213,182 tons of ore, giving a return equal to 23,611 tons of refined metal, an average production of 11·07 per cent. of copper per ton of ore, and the sum of £154,000 has been paid in dividends to the shareholders. Nymagee employed a complement of 250 persons, and its ores contain an average proportion of copper equal to 11·42 per cent. Since its formation in 1883, to the end of 1891, this mine has paid in dividends £94,000. The yield for 1891 was 9,355 tons of sulphide ore, which when melted produced 901 tons of copper, valued at £45,050. The production for 1892 was returned as 6,238 tons of ore, valued at £31,360. The mine is now closed. The refined Nymagee copper is superior to that of Cobar, and commands a higher price in the market. A depth of 734 feet has been reached in sinking through the lode, which varies from 8 to 20 feet. The New Mount Hope and the Great Central copper-mines are also said to be rich in payable ores. The first mentioned employed 36 men and 4 boys in 1891, and raised 1,094 tons of ore, equal to 208 tons of copper, valued at £9,158. The total yield of the Cobar district during 1891 is estimated at 1,109¼ tons of copper, valued at £54,208. The Burraga Mine yielded during 1889, 476 tons of copper, valued at £36,625 ; and during 1890, 420 tons, worth £24,150. Owing to the low price of copper this mine was closed during 1891, but the furnaces were still at work upon 2,000 tons of ore at grass. The deepest shaft is 300 feet, and the lode is said to be 15 feet wide. The output for 1892 was only 800 tons of ore.

Nymagee copper mine.

Cupriferous deposits abound in Queensland, and at one time there was considerable speculation in copper-mining stock. Peak Downs and Mount Perry acquired great celebrity in the Australian mining market, but afterwards suffered reactionary depression, and were ultimately abandoned, the result, in a large measure, of over speculation. In Northern Queensland copper is found throughout the Cloncurry district, in the upper basin of the Star River, and the Herberton district. The returns

Copper in Queensland.

of the copper-fields in this Colony are at present small, owing to the lack of suitable fuel for smelting purposes, which renders the economic treatment of the ore difficult; and the development is greatly retarded for the want of easy and cheaper communication with the coast, but it is expected that these disabilities will be overcome at no distant date, and a revival of the industry is hoped for, as some of the abandoned fields contain very extensive deposits of copper-ore.

Copper in Western Australia.

In Western Australia copper deposits have been worked for some years, and form with lead the principal elements of the mineral production of that Colony. Very rich lodes of both metals have been found in the Northampton, Murchison, and Champion Bay districts, and also in the country to the south of these districts on the Irwin River. The copper industry, however, is almost at a standstill, at present, through the low ruling price of copper, and the heavy expense of cartage, but it is anticipated that the cost of carriage will be reduced, and then several of these mines may be worked at a profit. The total export of copper since 1845 was 8,521 tons, valued at about £140,000.

Victorian copper.

Copper mining has not attained any great proportions in Victoria, although deposits have been found in several parts of the Colony, particularly in the Beechworth district, where they have been traced over an area of some 50 square miles. The production during 1891 was 60 tons of ore, valued at £216.

New Zealand and Tasmanian copper.

The copper deposits of New Zealand and Tasmania have been worked to a small extent only.

Virgin copper.

The metal is sometimes found in the Australasian mines in a virgin state, of which beautiful specimens have been exhibited at different times, but occurs generally in the form of oxidised copper ores, carbonates, sulphates, phosphates, and silicates of copper. The museums of South Australia, Victoria, and New South Wales contain striking samples of azurite and malachite, magnificent blocks of which have been shown from time to time

at exhibitions, not only in the Colonies, but also in Europe and America.

Copper sulphides and arsenides of copper are generally found in deep sinkings. The metal has also been found associated with tin in the form of *stannine*. Stannine.

The number of men employed in copper-mining in New South Wales, during 1891, was 481, whilst but a few hands were employed in Queensland and Tasmania. Number of copper miners.

The total value of copper produced in Australasia during and up to the end of 1891, and the proportion furnished by each Colony are given below. The value of copper produced in New South Wales during 1892 was £163,242 :— Australasian production of copper.

Colony.	During 1891.		Total Production to 31st December, 1891.	
	Value.	Percentage of each Colony.	Value.	Percentage of each Colony.
	£	Per cent.	£	Per cent.
New South Wales ...	119,195	33·2	3,481,923	13·5
Victoria	216	....	191,423	0·7
Queensland	865	0·2	1,958,112	7·6
South Australia	235,317	65·4	19,986,767	77·5
Western Australia...	4,462	1·2	144,462	0·6
Tasmania	.....	.....	617	.....
New Zealand	4	.....	17,866	0·1
Australasia.....£	360,059	100·0	25,781,170	100·0

In 1872, copper realised as much as £172 per ton, whilst in December, 1886, the lowest price on record was touched, and only £38 7s. 6d. could be obtained for Chili bars. At the end of 1887 the price had risen to £74 per ton, and in August, 1888, to £81 5s. In January, 1893, the quotation had fallen to £46 per ton. Price of copper.

Tin was known to exist in Australasia almost from the first years of colonisation, the earliest mention of the mineral appearing in a report of a discovery by Surgeon Bass on the north coast of Tasmania. In the form of *cassiterite* (oxide of tin) it occurs Tin.

in all the Colonies, but the richest deposits have been found in Tasmania—the Mount Bischoff being the most celebrated tin-mine in Australasia. The wealth of Queensland and the Northern Territory of South Australia in this mineral, according to the reports of Mr. Jack, the Government Geologist of the former colony, and the late Rev. Tenison-Woods, appears to be very great.

Tin in New South Wales.

In New South Wales this mineral occurs principally in the granite and basaltic country in the extreme north of the Colony, near Tenterfield and Vegetable Creek, now called Emmaville, Tingha, and in other districts of New England. Tin has also been discovered in the Barrier Ranges, at Poolamacca; near Bombala, in the Monaro district, and in the Valley of the Lachlan, but none of these deposits have as yet been utilised to any extent. The deposits occur in the shape of stream and lode tin, and are worked by European and Chinese miners. Although this mineral was discovered by the Rev. W. B. Clarke as far back as the year 1853 the opening of the tin-fields of New South Wales only took place in the year 1872, and since that date the output from the mines has been considerable. The chief tin-mining centres are at Emmaville and Tingha in the northern portion of the Colony. The production of these fields has been until lately from alluvial deposits which are now said to be practically exhausted. In the former district several lodes have been opened up, the principal of which is at the Ottery mines, the yield from which was 75½ tons during 1891.

Chief tin-mining centres.

Tin in Tasmania.

In Tasmania, as in New South Wales, nearly all the tin hitherto produced has been from alluvial deposits, the lodes in the vicinity of Heemskirk, Mount Bischoff, and Ben Lomond have remained almost untouched. Considerable areas of alluvial tin ground in the eastern and north-eastern divisions are now worked out, and the miners have been obliged to turn their attention to the development of the other branch of tin-mining. Considerable energy is now being thrown into lode tin-mining in the Blue Tier district, where there are deposits containing a payable percentage of tin.

The present difficulty is to provide suitable appliances for saving the metal, but no doubt a means will be found to work the deposits profitably. The Mount Bischoff Mine and the Ringarooma mines in the north-eastern and north-western divisions respectively yielded more than three-fourths of the annual tin production of Tasmania.

The Queensland tin-mines.

The most important tin-mines in Queensland are in the Herberton district, south-west of Cairns, at Cooktown on the Annan and Bloomfield Rivers, and at Stanthorpe on the borders of New South Wales. The Herberton is the chief tin-mining centre of Queensland, and the output for 1891 was valued at £68,850; the tin in this district being chiefly obtained from lodes. Herberton and Stanthorpe have produced more than three-fourths the total production of Queensland to the end of 1891.

Tin in Victoria.

The yield of tin in Victoria is very small, and until lately no fields of importance had been discovered, but towards the latter end of 1890 extensive deposits were reported to exist in the Gippsland district at Omeo and Tarwin; 140 men are now engaged mining on these fields; small deposits have likewise been found in the Beechworth district at Indigo and Mitta Mitta, where 23 miners are employed. The total yield for these fields during 1891 was 1,778½ tons of tin-ore, valued at £5,092.

In South Australia and Western Australia tin-mining is unimportant, the yields up to date being slight, while in New Zealand no production is officially recorded. During 1890 some small fields were reported to have been found in Stewart Island, but there is no record that they were worked during 1891.

Fluctuations in the price of tin.

The tin-mining industry has been subject to frequent fluctuations, especially of late years. The value of the metal in the European market was £159 per ton in 1872, £52 in 1878, £114 in 1880, and 1882, and fell to £72 in 1884. The highest price—£168 per ton—was attained in the year 1887 owing to the operations of French syndicates. In January, 1893, Australian tin was quoted in the London market at £96 10s. per ton.

The value of the production of tin during 1891, and up to the end of that year, was as given below. During 1892 tin to the value of £152,994 was produced in New South Wales :—

Colony.	During 1891.		Total Production to 31st December, 1891.	
	Value.	Percentage of each Colony.	Value.	Percentage of each Colony.
	£	Per cent.	£	Per cent.
New South Wales...	133,963	24·0	5,675,663	36·3
Victoria	5,092	·9	679,111	4·4
Queensland.....	116,387	20·8	3,925,310	25·1
South Australia.....	68	.....	18,388	·1
Western Australia..	10,200	1·8	15,900	·1
Tasmania..	293,170	52·5	5,301,355	34·0
Australasia.....	558,880	100·0	15,615,727	100·0

Number of tin-miners.

The number of persons engaged in tin-mining in 1891, was as follows :—In New South Wales, 1,951 ; Tasmania, 1,443 ; Queensland, 984 ; and Victoria, 163.

Titanium.

Titanium, of the varieties known as octahedrite and brookite, is found in New South Wales, with diamonds, in alluvial deposits.

Wolfram.

Wolfram (tungstate of iron and manganese) occurs in some colonies, notably New South Wales, Victoria, and New Zealand. Scheelite, another variety of tungsten, is also found in the last-mentioned Colony. *Molybdenum*, in the form of molybdenite (sulphide of molybdenum), is found in New South Wales and Victoria, associated in the former Colony with tin or bismuth in quartz-reefs. None of these minerals—titanium, tungsten, and molybdenum—have been systematically mined for.

Zinc.

Zinc ores, in the several varieties of carbonates, silicates, oxide, sulphide, and sulphate of zinc, have been found in several of the Australasian colonies, but have attracted little attention.

Iron.

Iron is distributed throughout Australasia, but for want of capital in developing the fields this industry has not progressed. In New South Wales there are important deposits of rich iron-

ores, together with coal and limestone in unlimited supply, suitable for smelting purposes, and for the manufacture of steel of certain descriptions abundance of manganese, chrome, and tungsten ores are available. The most extensive fields are in the Mittagong, Wallerawang, and Rylstone districts, which are roughly estimated to contain in the aggregate 12,944,000 tons of ore, containing 5,853,000 tons of metallic iron. During 1890 a mining expert from England was sent out in the interest of English capitalists to inspect the iron, coal, and limestone deposits of New South Wales, and to report upon the probable cost of manufacturing iron in the Colony.

Iron manufactories in N.S. Wales.

The only works for the manufacture of iron from the ore are situated at Eskbank, near Lithgow, where the metal treated is red siliceous ore, averaging 22 per cent., and brown hematite, yielding 50 per cent. metallic iron. Abundance of coal and limestone are found in the neighbourhood. This establishment, however, has for some time abandoned the manufacture of pig-iron, for which it was originally built. The principal work now carried on is the re-rolling of old rails, the manufacture of iron bars, rods, and nails, and of ordinary castings.

Magnetite.

Magnetite, or magnetic iron, the richest of all iron ores, is found in abundance near Wallerawang in New South Wales. The proximity of coal-beds now being worked should accelerate the development of the iron deposits, which contain 41 per cent. of metal. Magnetite occurs in great abundance in Western Australia, together with hematite, which would be of enormous value if cheap labour were abundant.

Iron smelting in New Zealand.

Works for the treatment of local titanic iron ore were erected some years ago at Taranaki, on the west coast of New Zealand, but it was found that the cost of smelting left no margin for profit, and the works were consequently abandoned.

Extent of deposits of iron ore.

Goethite, *limonite*, and *hematite* are found in New South Wales, at the junction of the Hawkesbury sandstone formation

and the Wianamatta shale, near Nattai, and are enhanced in value through being in proximity to coal beds Near Lithgow extensive deposits of limonite or clay-band ore are interbedded with coal. *Siderite* or *spathic* iron (carbonate of iron) and *vivianite* (phosphate of iron) are found in New Zealand. The latter also occurs in New South Wales, intermingled with copper and tin ores.

Pyrites.

Sulphuretted iron ores (*pyrites*) are of little intrinsic value, but are often of considerable worth on account of the other minerals with which they are associated, common pyrites being often auriferous. *Mispickel* differs from other pyrites inasmuch as it contains arsenic, sometimes gold and silver, and is frequently associated with tin and copper ores; but the extraction of gold is rendered difficult on account of the presence of the arsenic. These minerals (pyrites) are common to all the Colonies.

Nickel.

Nickel, so abundant in the island of New Caledonia, has, up to the present, been found in none of the Australasian Colonies except Queensland; but no attempt has been made to prospect systematically for this valuable mineral.

Cobalt.

Cobalt occurs in New South Wales and Victoria, and efforts have been made in the former Colony to treat the ore, the metal having a high commercial value; but the results have not been of an encouraging nature, and the development of this industry is in abeyance. The manganese ores of the Bathurst district often contain a small percentage of cobalt, sufficient, indeed, to warrant further attempts in this direction.

Manganese.

Manganese probably exists in all the Colonies, deposits having been found in New South Wales, Victoria, Queensland, New Zealand, and Western Australia, the richest specimens being in New South Wales and New Zealand. Little, however, has been done to utilise the deposits, the demands of the colonial markets being extremely limited, but in event of the extensive iron ores of New South Wales being worked on a large scale the manganese, plentiful as it is in that Colony, will become of commercial importance. The ore

generally occurs in the form of oxides, *manganite*, and *pyrolusite*, and contains a high percentage of sesquioxide of manganese. The production of manganese in New Zealand during 1891 was valued at £2,634, and the total yield up to the end of that year £53,925. New South Wales is the only other Colony producing even a small quantity of this mineral.

Chrome iron.

Chrome Iron or chrome ore has been found in New Zealand and Tasmania, but the only attempt to work this mineral in this part of the world is that made at New Caledonia.

Sulphur.

Sulphur exists in large quantities in the volcanic regions of New Zealand, where it will doubtless some day become an article of commerce. Professor Liversidge, in his work on the minerals of New South Wales, states that sulphur occurs in small quantities at Mount Wingen, in the Upper Hunter district of that Colony, and also at Tarcutta, near Wagga Wagga, and on Louisa Creek, near Mudgee.

Arsenic.

Arsenic, in its well known and beautiful forms, orpiment and realgar, is found in New South Wales and Victoria. It usually occurs in association with other minerals, in veins.

Antimony.

Antimony is widely diffused throughout Australasia, and is sometimes found associated with gold. Extensive fields have been discovered in the northern tablelands of New South Wales, especially at Hillgrove, in the vicinity of Uralla. In Victoria the production for the last few years was small compared to former periods; only 35 men were engaged mining for this metal during 1891, as against 238 in 1890. The fluctuation in the price of this mineral on the London market is the cause of this great falling-off in the number of miners. The principal mine is at Castlemaine, but several fields are being explored in the Sandhurst and Beechworth districts. In Queensland the fields are all showing development, as the output of 1891 proves, there being a considerable increase compared with that of late years. In New Zealand very little antimony ore was obtained during the

year. The quantity of ore exported from that Colony in 1891 was 413 tons, valued at £4,950. Good lodes of stibnite (sulphide of antimony) have been found near Roebourne, in Western Australia.

Value of antimony.

The following table shows the value of antimony produced in Australasia up to the end of 1891 :—

Colony.	Value.	Percentage produced.
	£	
New South Wales	115,798	31·7
Victoria	173,760	47·6
Queensland	34,412	9·4
New Zealand	41,140	11·3
Australasia	365,110	100·0

The antimony produced by New South Wales in 1891 was valued at £22,057 ; that produced by New Zealand was worth £4,950 ; Queensland, £3,625 ; and Victoria, £1,188. In 1892, New South Wales produced antimony to the value of £14,680.

Bismuth.

Bismuth is known to exist in all the Australian Colonies, but up to the present time has been mined for in New South Wales and Queensland alone. It is usually found in association with tin and other minerals, but in one instance a mass of native bismuth, weighing 30 lb., was found in the Colony first mentioned. The principal mine is situated at Kingsgate, in the New England district, where the mineral is generally associated with molybdenum and gold ; this mine, however, is at present closed. The value of bismuth produced up to the end of 1891, in New South Wales and Queensland, was £36,642, and £21,331 respectively.

The Diamond.

Of all the mineral forms of carbon the diamond is the purest, but as it is usual to class this precious substance under the head of gems that custom will be followed in the present instance.

Graphite.

Graphite, or plumbago, which stands second to the diamond in point of purity, has been discovered in New Zealand, in the form

of detached boulders of pure mineral. It also occurs in impure masses where it comes into contact with the coal measures. This mineral, up to the present time, has not been found in any of the other Colonies except New South Wales, where in 1889 a lode 6 feet wide was discovered near Undercliff, in the New England district, and Western Australia, where, however, owing principally to difficulties of transit, very little of it has been worked.

Mineral fuel.

The Australasian Colonies have been bountifully supplied by Nature with mineral fuel. Five distinct varieties of black coal, forming well characterised types, may be distinguished, which form, with the two extremes of brown coal, or lignite, and anthracite, a perfectly continuous series. For statistical purposes, however, they are all included under the generic name of "coal," and therefore these minerals will be considered here under the three main heads—lignite, coal, and anthracite only.

Lignite.

Brown coal or *lignite* occurs principally in the Colonies of New Zealand and Victoria. Attempts have frequently been made to use this mineral for ordinary fuel purposes, but its inferior quality has prevented its use extending very largely. In Victoria, during 1891, 6,322 tons were raised in the Ballarat district, valued at £1,673. The fields of lignite in New Zealand are roughly estimated to contain about 500 million tons.

Ordinary coal-

Black coal forms one of the principal mineral resources of New South Wales, and in New Zealand the rich deposits of this valuable substance are rapidly being developed. That they will form an important source of commercial prosperity cannot be doubted, as the known areas of the coal-fields of this class have been roughly estimated to contain about 500 million tons of coal in New Zealand, and 78,198 million tons in New South Wales. New Zealand also possesses a superior quality of bituminous coal, which is found on the west coast of the Middle Island. An estimate of the probable contents of these coal-fields is given as 200 million tons. Coal has been discovered in Victoria, and raised in small

quantities for some years past; but the industry is still in its experimental stage. Excellent steam coal has been found in Tasmania, and coal-mining in that Colony is becoming a well established industry. From time to time reports have been raised of the discovery of coal in South Australia, but no very definite or satisfactory information on the subject has been brought forward, such as would warrant the employment of capital, except in the direction of prospecting researches. Coal of a very fair description was discovered in the basin of the Irwin River, in Western Australia, as far back as the year 1846. It has been ascertained from recent explorations that the area of carboniferous formation in that Colony extends from the Irwin northwards to the Gascoyne River, about 300 miles distant, and probably all the way to the Kimberley district. Brown coal, of a somewhat poor quality, has been discovered on the south-eastern coast of the Colony, but black coal, of fairly good quality, has been found on the Fly Brook, near Cape Leeuwin, and in the bed of the Collie River, near Bunbury, to the south of Perth. Mr. Jack, the Government Geologist of Queensland, considers the extent of the coal-fields of that Colony practically unlimited, and is of opinion that the carboniferous formations extend to a considerable distance under the Great Western Plains. It is roughly estimated that the coal measures at present practically explored extend over an area of about 24,000 square miles. Coal-mining has been an established industry in Queensland for some years, and is progressing satisfactorily.

Tasmanian coal.

Coal in Western Australia.

Queensland coal.

Discovery of coal.

Coal was first discovered in New South Wales in the year 1797, near Mount Keira, by a man named Clark, the supercargo of a vessel called the "Sydney Cove," which had been wrecked in Bass's Straits. Later in the same year Lieutenant Shortland discovered the river Hunter with the coal-beds situated at its mouth. Little or no use, however, was made of the discovery, and in 1826 the Australian Agricultural Company obtained a grant of 1,000,000 acres of land, together with the sole right, conferred upon them by charter, of working the coal-seams that were known to exist in

the Hunter River district. Although the Company held this valuable privilege for twenty years, very little enterprise was exhibited by them in the direction of winning coal, and it was not until the year 1847, when the Company's monopoly ceased, and public competition stepped in, that the coal-mining industry began to show signs of progress and prosperity. From the 40,732 tons extracted in 1847 under the monopoly of this Company, the quantity raised had in 1891 expanded to the large figure of 4,037,929 tons, valued at £1,742,796. In 1892, however, the output was only 3,780,968 tons, valued at £1,462,388.

Coal-fields of New South Wales.

The coal-fields of New South Wales are situated in three distinct regions—the Northern, Southern, and Western districts. The first of these comprises chiefly the mines of the Hunter River districts; the second includes the Illawarra district and, generally, the coastal regions to the south of Sydney together with Berrima, on the tableland; the third consists of the mountainous regions on the Great Western Railway, and extends as far as Dubbo. The total area of the carboniferous strata of New South Wales is estimated at 23,950 square miles. The seams vary in thickness. One of the richest has been found at Greta, in the Hunter River district; it contains an average thickness of 41 feet of clean coal, and the quantity of coal underlying each acre of ground has been computed to be 63,700 tons.

Thickness of coal seam at Greta.

Coal-mines registered in New South Wales.

The number of coal-mines registered in New South Wales during 1892 was 101, as compared with 102 in the previous year. These gave employment to 10,514 persons, of whom 8,624 were employed under ground, and 1,890 above ground. The average quantity of coal extracted per miner was 360 tons, as against an average of 463 tons for the previous year. In 1882 the weight per miner stood at 578 tons; but the yield has since gradually declined, and the average for 1890 was less than that of any of the preceding ten years, owing to the collieries standing idle for several months during the year on account of the general strike; however, the average for 1891 was the highest since

Production to each miner.

1885. The average quantity of coal extracted per miner, calculated upon the basis of the output for the last ten years, is 456 tons, which, at the mean price of coal at the pit's mouth, is equivalent to £202 14s. 6d. This production is certainly very large, and compares favourably with the results exhibited by the principal coal-raising countries of the world, as will be evident from the following figures given by Mulhall :—

Country.	Tons of coal raised per miner.	Value at the pit's mouth per ton.	Total value of coal raised per miner.
		£ s. d.	£ s. d.
New South Wales	456	0 8 11	202 14 6
Great Britain	330	0 6 0	111 0 0
United States	347	0 8 4	139 0 0
Germany	336	0 5 3	78 0 0
France	196	0 9 0	88 0 0
Belgium	168	0 7 6	63 0 0
Austria	270	0 5 0	57 0 0

Earnings of miners.

In the absence of information as to the average amount of wages paid to coal-miners in other countries an exact comparison is not possible, but it is abundantly clear, that in spite of the acknowledged drawbacks to a miner's lot in the Australian Colonies, in no other country is it so satisfactory. The foregoing table proves this, for on the improbable supposition that the miner everywhere receives in wages the same proportion of the value of the coal as in New South Wales, that is, about 40 per cent. of the selling price at the pit's mouth, the average earnings in each country would be :—

Country.	Coal per miner.	Wages per ton of coal.	Earnings of miner per annum.
	Tons.	s. d.	£ s. d.
New South Wales	456	3 7	81 14 0
Great Britain	330	2 5	39 17 6
United States	347	3 4	57 16 8
Germany	336	2 1	35 0 0
France	196	3 7	35 2 4
Belgium	168	3 0	25 4 0
Austria	270	2 0	27 0 0

Local consumption.

The Colony was its own chief customer during 1891, when out of a total production of 4,037,929 tons, the consumption amounted to 1,793,200 tons, or over 44 per cent. Victoria came next, with 954,277 tons, or 38 per cent. of a total export of 2,514,368 tons. In 1892, when the total production amounted to 3,780,968 tons, the home consumption was 1,589,263 tons, or about 42 per cent. Victoria took 879,068 tons, or 40 per cent. of a total export of 2,191,705 tons. The quantity of coal required for local consumption denotes a satisfactory increase during most years.

Consumption per head.

The annual consumption per head increased from 15 cwt. in 1876 to 24½ cwt. in 1888; it was 31 cwt. in 1891, and 27 cwt. in 1892. The larger use of steam for railway locomotives, for manufacturing, and other purposes, as well as the multiplication of gas-works, accounts for a great portion of the increase, but it must also be borne in mind that there is a large and increasing demand for bunker coal for ocean-going steamers, which appears not as an export, but as required for home consumption. The amount of coal taken by the steamers during 1891 was little short of 300,000 tons.

Export of coal from New South Wales.

The progress of the export trade, from 1881 to 1891, is shown in the following table, also the direction of the trade at those periods :—

Country.	Quantity.		Value.	
	1881.	1891.	1881.	1891.
	Tons.	Tons.	£	£
Australasian Colonies	657,135	1,510,976	255,572	755,509
India, Ceylon, and China	136,511	98,817	59,944	55,219
Mauritius	6,249	19,760	2,414	10,813
Pacific Islands	19,526	141,055	8,011	75,803
United States	150,002	365,623	68,172	200,851
South America	8,017	221,700	3,243	123,136
Other Countries	52,404	156,437	20,174	85,299
Total	1,029,844	2,514,368	417,530	1,306,630

Export of coal from New Zealand.

During 1892 the export of coal from New South Wales equalled 2,191,705 tons, valued at £1,028,395. Of this quantity 1,318,008 tons, valued at £587,016, went to the other Australasian colonies.

New Zealand is the only other Australasian Colony in a position to export coal to any large extent. The export trade of that Colony for 1881 and 1891 was :—

Country.	Quantity.		Value.	
	1881.	1891.	1881.	1891.
	Tons.	Tons.	£	£
Australasian Colonies	6,049	14,277	5,022	8,488
United Kingdom	.....	68,871	.....	76,027
Fiji and Norfolk Island	21	3,282	25	2,469
Pacific Islands, &c.	551	5,234	563	4,189
Total	6,621	91,664	5,610	91,173

The exports to the United Kingdom, both from New South Wales, and from New Zealand, in all probability consisted of bunker coal, for the steamers.

Coal produced in New Zealand.

Most of the coal-beds of New Zealand are on the West coast of the South Island. The chief mines are at Westport, Greymouth, and Otago. The total quantity of coal produced in 1891 was 668,794 tons, for the whole Colony, of which Westport contributed 206,184 tons, Greymouth 145,351 tons, and Otago 164,870 tons. The only important coal measures of the North Island are those of the Waikato, which produced 55,869 tons.

Coal in Queensland.

The total production of coal in Queensland for 1891, was, 271,603 tons, valued at £128,198, most of which came from the mines at Ipswich and at Burrum, in the Maryborough district. Queensland exported in 1881, 2,742 tons, valued at £1,783 ; and in 1891, 9,635 tons, valued at £9,043.

The quantity of coal extracted annually in Australasia has now more than reached 5,000,000 tons, valued at £2,293,259.

The proportion due to each Colony for the year 1891 was as follows :—

Colony.	Quantity.	Value.	Proportion of value raised by each Colony.
	Tons.	£	Per cent.
New South Wales	4,037,929	1,742,796	76·1
Victoria	29,156	21,404	·9
Queensland	271,603	128,198	5·6
Tasmania	45,524	21,123	·9
New Zealand.....	668,794	379,738	16·5
Australasia	5,053,006	2,293,259	100·0

Value of coal production.

The total value of coal produced in the Australasian Colonies up to the end of 1891 is shown in the following table :—

Colony.	Quantity.	Total value.	Proportion of value raised by each Colony.
	Tons,	£	Per cent.
New South Wales	53,902,788	25,809,041	82·7
Victoria	103,420	79,191	·2
Queensland	2,903,917	1,341,552	4·3
Tasmania	.....	250,730	·8
New Zealand.....	7,131,986	3,740,958	12·0
Australasia.....	.....	31,221,472	100·0

Number of miners employed.

During the year 1891 this industry gave direct employment, in and about the mines, to the following number of persons in the several Colonies in which the returns were available :—

	Miners.
New South Wales	10,820
Victoria	260
Tasmania	197
New Zealand	1,693

Average prices.

The average price of coal per ton varies in the Colonies very considerably. In New South Wales, from 1846 to 1891, the average price obtained was 9s. 7d., but the mean of the last ten years is a little below these figures. In 1891 the average price per ton

of coal delivered at the mines in the Australasian Colonies was as follows :—

	£	s.	d.
New South Wales	0	8	8
Victoria	0	14	5
Queensland	0	9	5
Tasmania	0	9	0
New Zealand	0	11	4
Australasia	0	9	1

Anthracite.

Anthracite is found on the island of Tasmania. It is a hard and heavy mineral, burning with difficulty, and it possesses very little commercial value in countries where ordinary coal abounds.

The following table shows the coal annual production by the principal countries of the world to the latest date obtainable :—

Country.	Quantity.
	Tons.
Great Britain	181,614,288
United States	125,563,704
Germany	67,342,200
France	24,303,509
Belgium	19,869,980
Canada	2,719,478
Australasia	5,053,006

Kerosene shale.

Kerosene Shale (torbanite) is found in several parts of the Colony of New South Wales. It is a species of cannel-coal, somewhat similar to the Boghead mineral of Scotland, but it yields a much larger percentage of volatile hydrocarbons than can be obtained from the Scottish mineral. The richest quality of Australian kerosene shale yields upwards of 150 gallons of crude oil per ton, or 18,000 cubic feet of gas, with an illuminating power of 38 or 48 sperm candles. The New South Wales Oil and Mineral Company, at Joadja Creek, and at Hartley Vale, not only raise kerosene shale for export, but also manufacture from it petroleum oil and other products. Since the year 1865, when the mines were first opened, to the end of 1892, the quantity of kerosene shale raised amounted to 727,238 tons, worth £1,552,791. The average price realised during that interval was £2 2s. 8d. per ton. The prices ruling in 1892, when

74,197 tons were extracted, averaged £1 16s. 8d. per ton, representing a total value of £136,079, for the production of that year. The export of shale from New South Wales for 1891 and 1892 was :—

Exported to.	1891.		1892.	
	Quantity.	Value.	Quantity.	Value.
	Tons.	£	Tons.	£
Victoria	3,053	8,034	3,559	9,940
United Kingdom	4,725	12,400	7,717	22,879
Netherlands	8,267	23,465	18,578	54,301
Italy	5,621	17,930	1,045	3,330
United States	2,571	7,437	1,210	3,354
Spain	5,272	15,472	3,438	10,528
Brazil	2,977	10,060	4,180	12,285
Chili	.....	.....	1,950	5,616
Other Countries	2,166	6,490	3,119	9,540
Total	34,652	101,288	44,796	131,773

Oil shale in New Zealand

Extensive formations of oil shale have been found in Otago, and at Orepuki, in Southland. Attempts have been made to develop the oil resources of Waipaoa, but, so far, unsuccessfully. The oil produced does not possess the properties required in illuminating oils, but it is valuable for lubricating purposes.

Import of kerosene.

The net import of kerosene into Australasia in 1891 was as follows. No figures are given for Western Australia, as that Colony does not distinguish kerosene from other oils :—

Colony.	Quantity.	Value.
	Gallons.	£
New South Wales	1,885,335	83,748
Victoria	2,314,061	106,025
Queensland	1,229,980	38,811
South Australia	943,150	25,443
Tasmania	188,077	7,173
New Zealand	1,562,458	65,289
Australasia	8,123,061	326,489

Ozokerite.

Ozokerite, or mineral wax, is reported to have been found at Coolah, in New South Wales.

Elaterite.

Elaterite, mineral caoutchouc, or elastic bitumen, is said to have been discovered in New South Wales and South Australia. In the last-named Colony a substance very similar to elaterite has been discovered in the Coorong Lagoons, and it has received the name of Coorongite. Up to the present time neither the extent of these finds nor their commercial value has been ascertained.

Bitumen.

Bitumen, is known to exist in Victoria, and it is reported to have been found near the township of Coonabarabran, in New South Wales.

Kauri gum.

Kauri Gum, a resinous substance somewhat resembling amber in appearance, and like that production an exudation from trees, is found only in New Zealand, where it is included under the head of minerals, although more logically entitled to be considered as a vegetable product. In that Colony kauri gum forms the object of an extensive and lucrative commerce. It is computed that the total value of this product obtained from 1853 to the end of 1891, was £5,831,743. In the year 1891 the quantity obtained represented a value of £437,056.

SALTS.

Rock salt.

Common *Rock Salt* has been found in New South Wales in rock crevices in several parts of the Colony, but it is not known to exist in large deposits so as to be of commercial importance.

Natron.

Natron is said to occur in the neighbourhood of the Namoi River, in New South Wales. It appears as a deposit from the mud-wells of that region.

Epsom salt.

Epsomite, or epsom salt (sulphate of magnesia), is seen as an efflorescence in caves and overhanging rocks of the Hawkesbury sandstone formation, and is found in various parts of New South Wales.

Alum stone.

Large deposits of *Alum* occur close to the village of Bulladelah, 30 miles from Port Stephens. Up to the end of the year 1892,

about 4,600 tons of alumite had been raised, most of which had been sent to England for treatment. It is said to have yielded well, and a quantity of the manufactured alum has been sent to Sydney for local consumption. During 1892 the Bulladelah mine yielded 1,600 tons of stone, valued at £3,200. In the course of the same year, 210 cwt. of locally manufactured alum, valued at £63, were exported to Victoria and New Zealand.

EARTHY MINERALS.

Marble is found in many parts of New South Wales, South Australia, New Zealand, and Tasmania. In New South Wales marble quarries have been opened in several districts, and some very fine specimens of the stone have been obtained. Marble.

Lithographic stone has been found in New Zealand, where another beautiful species of limestone known as the *Omaru stone* is also procured. This stone has a fine, smooth grain, and is of a beautiful creamy tint. It is in great demand for public buildings, not only in the Colony where it is found, but in the great cities of continental Australia, which import large quantities of this stone for the embellishment of their public edifices. Lithographic stone and Omaru stone.

Limestone is being worked on the Myall Lakes, near Bungwall, and small quantities have been forwarded from this district to Sydney.

Gypsum is found crystallised in clay-beds in New South Wales, and in isolated crystals in the Salt Lakes of South Australia, where a small proportion of sulphate of lime is present in the water. It is also found in portions of Victoria. This mineral is of commercial value for the manufacture of cement and plaster of Paris. It is found in the form of an insoluble salt in New South Wales, Victoria, and New Zealand. Gypsum.

Apatite, another mineral of considerable commercial importance, and very valuable as a manure, occurs in several districts of New South Wales, principally on the Lachlan River, at the head of the Abercrombie, and in the Clarence River district. Apatite.

QUARTZ AND SILICA.

Quartz.

Quartz is of common occurrence in all parts of Australasia. Rock crystal, white, tinted, and smoky quartz are frequently met with, as well as varieties of crystalline quartz, such as amethyst, jasper, and agate, which possess some commercial value.

Opals.

Common *Opals* are frequently found in the basaltic formations of Australasia. The precious, or noble opal, which might be included under the head of precious stones, has been found 60 miles north-west from Wilcannia, at a few feet from the surface, in layers between hard silicious sandstone. As much as £5 per oz. has been offered for good specimens. During 1890 the quantity of noble opal won from these mines was 195 lb., valued at £15,600. The mines were not worked in 1891. This gem has also been found in basalt, near the Abercrombie River, and in sandstone, near Lismore. In Queensland opals are found in the Windorah district, where the labour of twenty men in 1890, produced opals valued at £3,000. Opal-bearing stone is known to exist in the ranges between Adavale and Cooper's Creek, in the Charleville district, Queensland and the northern portions of New South Wales.

Chalcedony, carnelian, &c.

Chalcedony, carnelian, onyx, and *cat's eye,* are found in New South Wales; probably also in the other Colonies, particularly Queensland.

Tripoli.

Tripoli, or rotten stone, an infusorial earth, consisting of hydrous silica, which has some value for commercial purposes, has been found in New South Wales, Victoria, and New Zealand.

Meerschaum.

Meerschaum is reported to have been discovered near Tamworth and in the Richmond River district, in New South Wales.

Mica.

Mica is also found in granitic country, chiefly in the New England and Barrier districts. In Western Australia very good mica has been found at Bindoon, and also on the Blackwood River, near Cape Leeuwin. Some promising discoveries of mica have recently been made near Herberton, in Northern Queensland.

CLAYS.

Kaolin and other clays.

Kaolin, *fire-clays*, and *brick-clays* are common to all the Colonies. Except in the vicinity of cities and townships, however, little use has been made of the abundant deposits of clay. Kaolin, or porcelain clay, although capable of application to commercial purposes, has not as yet been utilised to any extent.

Asbestos.

Asbestos has been found in New South Wales in the Gundagai, Bathurst, and Broken Hill districts—in the latter in considerable quantities. Several specimens of very fair quality have been met with in Western Australia.

GEMS AND GEMSTONES.

Diamonds.

Many descriptions of gems and gemstones have been discovered in various parts of the Australasian Colonies, but systematic search has been made principally for the diamond.

Diamonds are found in New South Wales, Victoria, and Queensland, but only in the first-named Colony have any attempts been made to work the diamond drifts. The principal diamond-fields are situated in the Bingara and Inverell districts, on the New England tableland, and Cudgegong, in the Wellington district. The Government of New South Wales has, on various occasions, obtained the services of experts to report upon the fields, as well as the gems which have been from time to time extracted from them, and these reports have generally been of an encouraging nature.

Yield and quality of diamonds.

The number of diamonds found in the Colony is estimated to be 97,000, the largest one being of $5\frac{5}{8}$ carats, or 16·2 grains. The diamonds occur in old tertiary river drifts, and in the more recent drifts derived from them. The deposits are extensive, and have not yet been thoroughly prospected. The New South Wales diamonds are harder and much whiter than the South African diamonds, and are classified on a par with the best Brazilian gems. During the year 1887 the diamond companies at Cope's Creek, near Bingara, produced about 23,000 diamonds, weighing 5,151

carats; but in 1888, owing to the severe drought which occurred, the search for diamonds had to be temporarily abandoned. In 1889 finds are reported to the extent of 2,196 carats, valued at £878. In 1891, 12,000 carats of diamonds were won in the Tingha and Inverell districts, but no value is given. With efficient methods of working this industry bids fair to become a profitable one.

Corundum.

Under the generic name of *Corundum* are included the most valuable gems known to commerce, next to the diamond. The *sapphire*, which is the most common of these gems, is found in all the Colonies, principally in the neighbourhood of Beechworth, Victoria.

Emeralds.

Oriental *emeralds* are found in New South Wales, and in Gippsland in Victoria. An emerald mine, in which the gem occurs in granitic lode, was opened near Emmaville, in the Glen Innes district, during 1890; 225 carats of emeralds were won from the mine during that year and forwarded to London. During 1891, the Emerald Proprietary Company obtained some 25,000 carats, the value of which, when cut and finished, is expected to attain about £2 per carat.

Topaz, amethyst, and ruby.

The yellow corundum, or Oriental *topaz*, has been found in New South Wales. Oriental *amethysts* also have been found in that Colony, and the red corundum, or *ruby*, the most valuable of all these gems, has been found in Queensland, as well as in New South Wales.

Miscellaneous gems.

According to an authority on the subject of gem-stones, rubies, Oriental amethysts, emeralds, and topaz have been chiefly obtained from alluvial deposits, but have rarely been met with in a matrix from which it would pay to extract them.

Chrysoberyls have been found in New South Wales; spinel rubies, in New South Wales and Victoria; white topaz, in all the Colonies; and yellow topaz, in Tasmania. *Ziron*, *tourmaline*, *garnet*, and other gem-stones of little commercial value, are found throughout Australasia.

In South Australia some very fine specimens of garnet were found, which caused some excitement at the time, as the gems were mistaken for rubies. The stones were submitted to the examination of experts, whose reports disclosed the true nature of the gems, and dispelled the hopes of those who had invested in the supposed ruby-mines of South Australia. Garnets.

MINERAL WEALTH OF AUSTRALASIA.

Australasia possesses invaluable mineral resources, and though enormous quantities of minerals of all kinds have been won since their first discovery, the deposits, with the exception, perhaps, of gold, have only reached the first period of their exploitation. Vast beds of silver, tin, and copper ore and coal are known to exist, but their development has not reached a sufficiently advanced stage to enable an exact opinion to be expressed regarding their commercial value, though it is confidently held by mining experts that this must be enormous. Summary of the mineral resources of Australasia.

In the year 1891 the total value of minerals raised, and the proportion due to each Colony, also the value per inhabitant, were as follows :— Value of minerals raised in 1891.

Colony.	Total production.	Percentage each Colony.	Per Inhabitant.
	£		£ s. d.
New South Wales	6,395,561	46·1	5 11 10
Victoria	2,339,513	16·8	2 0 10
Queensland	2,299,560	16·6	5 14 6
South Australia	365,945	2·6	1 2 8
Western Australia	130,094	0·9	2 11 1
Tasmania	516,393	3·7	3 9 4
New Zealand	1,840,686	13·3	2 18 5
Australasia	13,887,752	100·0	3 12 3

The total value of minerals raised in 1891 exceeds by about £2,840,000 the average annual amount since 1852. It will, however, be easily understood that the proportion of mineral

wealth extracted per head of the population is much less than it was during the prevalence of the gold fever. In comparison with that of the years 1851 to 1871 the production of the precious metals is considerably reduced. Nevertheless the search for gold led to the expansion of the mining industry into other channels, and although the gold-mining population has decreased, the number of miners engaged in the extraction of other minerals has largely increased, and it is a question whether the total number of persons who gain their livelihood by mining pursuits at the present time is not equal to the number who were so engaged at the time when gold and coal alone were the great elements of the mineral wealth of the Australasian Colonies. The resources known to exist, and yet to be developed in these Colonies, are likely to maintain, for many generations to come, a large and prosperous mining population.

Diversion of the Mining Industry.

Mineral production per head.

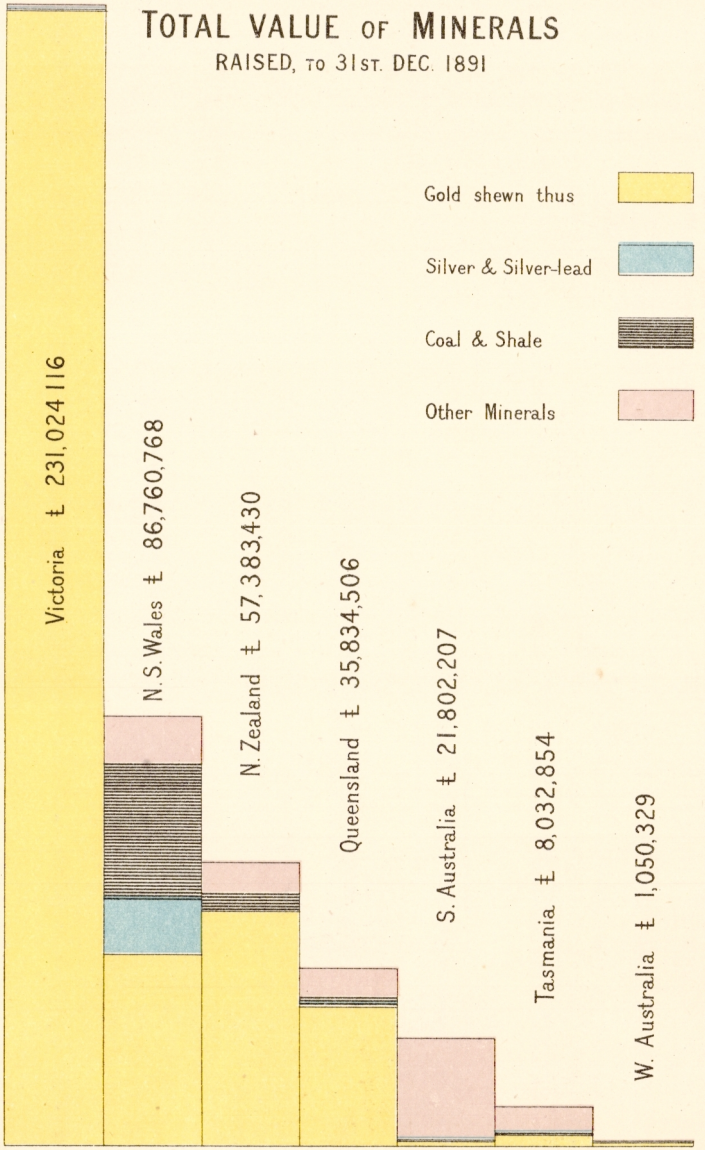
Comparing the value of mineral production with the population the largest share is obtained by Queensland, with £5 14s. 6d. per inhabitant, and New South Wales ranks second with £5 11s. 10d. The high average of Queensland is due to the gold mines, while in New South Wales more than half the year's wealth was contributed by the silver fields. The average per inhabitant for Australasia was £3 12s. 3d.

Minerals produced by each Colony.

The table on the next page shows the value of minerals raised in each of the Colonies during 1891, also the total production up to the end of that year, distinguishing the principal minerals. With regard to some of the Colonies the data are defective in respect to "other minerals," but not to so great an extent as to seriously affect the gross total. Coal was the only mineral raised in New South Wales prior to 1852, and its production up to that date was valued at £279,923. Deducting that amount from the total value of Australasian minerals raised up to the end of 1891, the remainder, £441,608,210, represents the value of mineral production from 1852, equal to an average of £11,040,200 per annum for the forty years.

TOTAL VALUE OF MINERALS

RAISED, TO 31ST. DEC. 1891



Printed at the Department of Lands, Sydney, N.S.W. 1893
Photo-Lithograph D 83 12

Total value of Minerals raised during 1891, and to the end of that year.

Colony.	Gold.	Silver and Silver Lead.	Copper.	Tin.	Coal.	Kerosene Shale.	Other Minerals.	Total.
New South Wales—	£	£	£	£	£	£	£	£
During 1891	558,306	3,619,589	119,195	133,963	1,742,796	78,160	143,552	6,395,561
To end of 1891	38,633,488	11,302,095	3,481,923	5,675,663	25,809,041	1,416,712	441,846	86,760,768
Victoria—								
During 1891	2,305,596	6,008	216	5,092	21,404	.....	1,197	2,339,513
To end of 1891	229,787,892	94,930	191,423	679,111	79,191	.....	191,569	231,024,116
Queensland—								
During 1891	2,017,536	21,879	865	116,387	128,198	.....	14,695	2,299,560
To end of 1891	28,052,199	498,590	1,958,112	3,925,310	1,341,552	.....	58,743	35,834,506
South Australia—								
During 1891	†125,529	.....	235,317	68	.....	.....	5,031	365,945
To end of 1891	1,295,297	101,727	19,986,767	18,388	.....	.....	400,028	21,802,207
Western Australia—								
During 1891	115,182	250	4,462	10,200	.....	.....	.....	130,094
To end of 1891	720,717	250	144,462	15,900	.....	.....	169,000	1,050,329
Tasmania—								
During 1891	149,816	52,284	.....	293,170	21,123	.....	.....	516,393
To end of 1891	2,388,499	91,653	617	5,301,355	250,730	.....	.....	8,032,854
New Zealand—								
During 1891	1,007,488	5,151	4	.....	379,738	.....	*448,305	1,840,686
To end of 1891	47,433,117	140,148	17,866	.....	3,740,958	.....	*6,051,341	57,383,430
Australasia—								
During 1891 ...	6,279,453	3,705,161	360,059	558,880	2,293,259	78,160	612,780	13,887,752
To end of 1891	348,311,209	12,229,393	25,781,170	15,615,727	31,221,472	1,416,712	7,312,527	441,888,210

*Includes Kauri gum, £437,056, during 1891, and £5,831,743 to the end of that year. † Includes production of Northern Territory, valued at £98,149.

FOOD SUPPLY AND COST OF LIVING.

Average consumption of food in Australasia.

CONSIDERING the comparatively high rate of wages which prevails, food of all kinds is fairly cheap, and articles of diet which in other countries are almost within the category of luxuries, are largely used, even by the poorer classes. The average quantities of the principal articles of common diet annually consumed in the various Colonies of Australasia are given below :—

Article.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.	Australasia.
Grain—								
Wheat .....lb.	390	300	246	390	390	362	454	334
Rice ....lb.	11·8	7·1	19·0	12·3	25·2	8·2	8·6	10·7
Oatmeal .....lb.	4·2	6·0	4·3	4·3	4·9	...	...	4·9
Potatoes .....lb.	206·5	353·0	281·0	205·0	99·7	550·0	461·0	305·0
Sugar .....lb.	93·5	90·75	80·0	96·3	106·2	87·0	86·8	91·2
Tea .....lb.	7·8	7·7	8·4	6·5	10·6	6·7	6·2	7·3
Coffee .....oz.	11·5	17·4	10·4	21·9	24·2	10·2	9·2	13·4
Cheese ....lb.	5·2	2·8	...	...	...	...	..	4·0
Butter .....lb.	16·7	10·8	...	...	...	...	...	13·8
Salt .....lb.	43·8	21·0	51·5	10·6	19·4	22·2	33·9	34·2
Meat—								
Beef .....lb.	176·8	155·0	280·0	...	...	60·0	90·0	161·1
Mutton .....lb.	104·8	98·0	90·0	...	...	150·0	110·0	103·7
Pork & Bacon.lb.	9·5	12·0	...	...	...	...	...	10·8

It will be seen that the consumption of wheat varies from 246 lb. in Queensland to 454 lb. in New Zealand, the average consumption being 334 lb. per head. Rice varies greatly in the quantity used, only 7·1 lb. being the consumption of Victoria as against 25·2 lb. in Western Australia. The consumption of oatmeal does not vary much, but it is larger in Victoria than in the

other Colonies. The use of tea is universal in Australia, the consumption being largest in Western Australia and Queensland—with 10·6 lb. and 8·4 lb. respectively. Sugar also enters largely into consumption, the average being 93·5 lb. per head in New South Wales and 90·75 lb. in Victoria. Coffee is not a universal beverage in Australasia, the consumption being a little more than one-ninth that of tea. It is used most largely in South Australia and Western Australia, where the annual demand amounts to 21·9 oz. and 24·2 oz. respectively. Large consumption of tea.

The consumption per head of potatoes in some of the Colonies is probably less than the foregoing table shows; thus in the case of Tasmania the returns show a consumption of 550 lb., and in New Zealand 461 lb. It is probable that potatoes are in some years grown in excess of the local requirements, and the market in New South Wales and other continental Colonies not being sufficient to absorb this excess, it remains unconsumed or is given to live stock and poultry; under the circumstances it is impossible to determine with exactitude the quantity entering into the food consumption of the population. Consumption of potatoes.

The consumption of meat has been ascertained with exactness for only five Colonies, but these may be taken as fairly representing the whole group. The average quantity of beef consumed in the year amounts to 161 lb. per head, that of mutton to 104 lb., and of pork 11 lb.; in all, 276 lb. It would appear that each inhabitant of these Colonies requires daily about three-quarters of a pound of meat, and that during the year two sheep are killed for each member of the community, and one bullock to every five persons. It is obvious, therefore, that much meat must be wasted. Consumption of meat.

The quantity of meat used by the Australasian people, as shown by the above figures, is the most remarkable feature of their diet. The consumption per inhabitant in Germany is 64 lb., in Australia it is four times that quantity, while in the United States, a meat exporting country, the consumption is little more than half that Meat consumption compared.

of Australasia. The following table shows the meat consumption per head for the principal countries of the world :—

Country.	lb. per Inhabitant.	Country.	lb. per Inhabitant.
Great Britain	109	Holland	57
France	77	Sweden	62
Germany	64	Norway	78
Russia	51	Denmark	64
Austria	61	Switzerland	62
Italy	26	United States	150
Spain	71	Canada	90
Belgium	65	Australasia	276

Quantity of food indicative of prosperity.

Judged by the standard of the food consumed, the lot of the population of Australasia must appear far more tolerable than that of the people of most other countries. This will most clearly appear from the following table, the particulars given in which, with the exception of those referring to Australasia, have been taken from Mulhall's Dictionary of Statistics :—

Country.	lb. per Inhabitant.						Tea and Coffee—Ounces.	Daily Energy—Foot tons.
	Grain.	Meat.	Sugar.	Butter and Cheese.	Potatoes.	Salt.		
United Kingdom	378	109	75	19	380	40	91	3,739
France	540	77	20	8	570	20	66	3,993
Germany	550	64	18	8	1,020	17	78	4,708
Russia	635	51	11	5	180	19	6	3,532
Austria	460	61	18	7	560	14	28	3,502
Italy	400	26	8	4	50	18	20	2,152
Spain	480	71	6	3	20	17	6	2,597
Portugal	500	49	12	3	40	17	18	2,659
Sweden	560	62	22	11	500	28	112	4,012
Norway	440	78	13	14	500	40	144	3,627
Denmark	560	64	22	22	410	25	140	4,071
Holland	560	57	35	15	820	20	240	4,635
Belgium	590	65	27	15	1,050	...	142	5,034
Switzerland	440	62	26	11	140	...	110	2,766
Roumania	400	82	4	9	80	...	8	2,414
Servia	400	84	4	9	80	...	8	2,422
United States	370	150	53	20	170	39	162	3,415
Canada	400	90	45	22	600	40	72	4,013
Australasia	350	276	91	18	305	34	127	4,470

Thermo-dynamic power of foods.

Taking the articles of the foregoing list, with the exception of tea and coffee, and reducing them to a common basis of comparison, it will be found that the amount of thermo-dynamic power, capable of being generated by the food consumed in Australasia is only exceeded by that of Germany, Holland, and Belgium. For purpose of comparison the figures of Dr. Edward Smith, F.R.S., in his well known work on Foods, have been used, and the heat developed has been reduced to the equivalent weight lifted 1 foot high. In estimating the thermo-dynamic effect of food, grain has been reduced to its equivalent in flour, and regard has been paid to the probable nature of the meat consumed. The figures for potatoes are given as they appear in the Dictionary of Statistics, but it is a probable supposition that but a small proportion of the quantity over 400 lb. set down for any country is required for human consumption, and the figures relating to some of the countries—notably the three just mentioned—are therefore excessive. The substances included in this table are largely supplemented both in America and Europe by other foods, but not more so than in these Colonies; and in the table just given will probably be found a just view of the comparative quantity and food-value of the articles of consumption in each of the countries mentioned. To make such a comparison perfectly just the average amount of work which each individual in the community is called upon to perform should be taken into consideration. In Australasia the proportion of women and children engaged in laborious occupations is far smaller than in Europe and America, and the hours of labour of all persons are also less, so that the amount of food-energy required is reduced in proportion.

Food consumed in excess of requirements.

In Mulhall's Dictionary of Statistics, under the heading of "Diet," is given a measure of the aggregate amount of work performed by persons doing physical and mental labour, and it would appear that the food of an average man, when burnt in the body, should be equal to at least 3,300 foot tons of work daily, that of a woman 2,200, and of a child 1,100 foot tons. For Australasia the average of all persons would be about 2,125 foot

tons, whereas, from the table just given, the amount of work which the daily food consumed by each individual in the Colonies from the principal foods consumed is equivalent to, is not less than 4,470 foot tons. The quantity of food consumed in these Colonies would therefore appear to be far in excess of the actual requirements of the population, and though the excess may be looked upon as waste, it is none the less evidence of the wealth of the people whose circumstances permit them to indulge in it.

Tobacco.

The following table gives the annual consumption of tobacco in Australasia and the principal countries of the world. The use of tobacco appears to be more prevalent in Queensland and Western Australia than in any of the other Colonies, while the least consumption is in South Australia, New Zealand, and Tasmania. Compared with other parts of the world, the average consumption of Australasia will not appear excessive :—

Country.	lb.	Country.	lb.
Australasia	2·60	Austria-Hungary	3·77
New South Wales	2·91	Italy	1·34
Victoria	2·30	Spain	1·70
Queensland	3·53	Holland	6·92
South Australia	2·12	Belgium	3·15
Western Australia	4·11	Switzerland	3·24
Tasmania	2·20	Sweden	1·87
New Zealand	2·17	Denmark	3·70
United Kingdom	1·41	Turkey	4·37
France	2·05	United States	4·40
Germany	3·00	Canada	2·11
Russia	1·23	Brazil	4·37

Consumption of intoxicants.

Taking Australasia as a whole it compares very favourably with most of the European countries in the quantity of intoxicants annually consumed by each inhabitant, as the following statement

shows. The figures, which are reduced to gallons of proof spirit from data given in Mulhall's Dictionary of Statistics, would look even more favourable to Australasia were the fact of the large preponderance of males over females in these Colonies made a feature in the comparison :—

Country.	Consumption.	Country.	Consumption.
	gallons.		gallons.
United Kingdom	3·57	Portugal.....	3·00
France	5·10	Holland	4·00
Germany	3·08	Belgium	4·00
Russia	2·02	Denmark	5·00
Austria	2·80	Scandinavia	4·36
Italy	3·40	United States	2·65
Spain.....	2·85	Australasia	2·93

Intoxicants consumed by each Colony.

The following table shows the consumption for all the Colonies during the year 1891. In the case of South Australia and Western Australia, whence no returns relating to breweries are obtainable, the consumption of beer has been assumed to be the average of the other five Colonies :—

Colony.	Spirits.		Wine.		Beer, &c.		Equivalent in Alcohol (proof) per inhabitant.
	Total.	Per inhabitant.	Total.	Per inhabitant.	Total.	Per inhabitant.	
	galls.	galls.	galls.	galls.	galls.	galls.	galls.
New South Wales	1,268,368	1·11	961,579	0·84	13,057,982	11·42	2·83
Victoria	1,358,900	1·19	1,969,192	1·72	19,739,218	17·23	3·93
Queensland	465,734	1·16	258,978	0·64	4,243,275	10·56	2·72
South Australia	206,902	0·65	526,419	1·66	3,565,064	11·23	2·61
Western Australia	75,014	1·47	209,819	4·12	572,224	11·23	4·15
Tasmania	92,209	0·64	24,073	0·17	1,329,671	9·29	1·8
New Zealand.....	439,829	0·70	108,028	0·17	4,814,811	7·65	1·74
Total and Means	3,906,956	1·02	4,058,088	1·06	47,322,245	12·33	2·93

The largest consumption of spirits per inhabitant is in Western Australia, Victoria being second. Wine is used most freely in Western Australia, Victoria, and South Australia, and beer in the Colony of Victoria. The average consumption of alcohol in all the Colonies amounts to 2·93 gallons of proof spirit per inhabitant, ranging from 4·15 gallons in Western Australia to 1·74 gallons in New Zealand. The total for Victoria is 39 per cent. larger than that of New South Wales. The figures relating to the production of beer in Victoria may, however, be over-stated, for as no excise duty is levied in that Colony it is quite possible that the returns furnished by the various breweries are greatly exaggerated.

Strength of Australian wines and beers.

It is popularly supposed that Australian wines and beers are not heavily charged with spirit as compared with the imported articles; this belief is erroneous. Several descriptions of Australian wines have a natural strength of 30 per cent. of proof spirit, while from analyses recently made it would appear that the strength of these wines offered for sale varies from 24 to 37 per cent. of spirit. On the same authority it was stated that imported beers ranged from 13·88 to 15·42 per cent. in the case of English, and from 9·58 to 11·76 per cent. of proof spirit in Lager, while the local manufacture varied according to the make from 11·21 to 15·12, the average being 13·75 per cent. It is generally understood, however, that since the imposition of excise duties on colonial beer in 1887, the strength of the article has been somewhat reduced, and does not average more than 13 per cent. of proof spirit.

COST OF LIVING.

Sufficient data are not available to enable a calculation to be made of the cost of living in all the Colonies, but with the materials to hand an estimate can be arrived at for New South Wales.

Income and expenditure of the people.

In the year 1892 an estimate was made of the yearly expenditure of the population of New South Wales, and it was found that

it amounted to £53,445,100. The distribution of this expenditure, together with the rates per inhabitant, is shown below :— Cost of living New South Wales.

	Total Expenditure.	Per Inhabitant.
	£	£ s. d.
Food and non-alcoholic beverages	17,228,300	14 11 6¾
Fermented and spirituous liquors	4,512,200	3 16 4¼
Tobacco	1,414,300	1 3 11¼
Clothing and drapery	8,391,600	7 2 0
Furniture	805,900	0 13 7¾
Rent or value of buildings used as dwellings	6,726,700	5 13 10
Locomotion	1,705,600	1 8 10¼
Fuel and light	1,797,300	1 10 5
Personal attendance and service	1,918,000	1 12 5½
Medical attendance, medicine, and nursing	1,427,800	1 4 2
Religion, charities, education	716,400	0 12 1½
Art and amusement	995,900	0 16 10¼
Books, newspapers, &c.	765,400	0 12 11½
Postage and telegrams, direct taxation	743,100	0 12 7
Household expenses not included elsewhere	2,814,600	2 7 7½
Miscellaneous expenses	1,482,000	1 5 1
	53,445,100	45 4 5½

The conditions of life and the standard of living are much the same in all the Colonies, but it would undoubtedly be incorrect to assume that the average expenditure throughout Australasia is equal to that of New South Wales. Making an arbitrary reduction on the New South Wales rates of 10 per cent. for the other Colonies the expenditure for Australasia would be as follows :— Cost of living, Australasia.

	Total Expenditure.	Per Inhabitant.
	£	£ s. d.
Food and non-alcoholic beverages	53,448,800	13 11 2¼
Fermented and spirituous liquors	13,998,600	3 11 0¼
Tobacco	4,387,700	1 2 3¼
Clothing and drapery	26,033,900	6 12 1
Furniture	2,500,200	0 12 8¼
Rent or value of buildings used as dwellings	20,868,800	5 5 10½
Locomotion	5,291,400	1 6 10¼
Fuel and Light	5,575,900	1 8 3½
Personal attendance and service	5,950,400	1 10 2¼
Medical attendance, medicine, and nursing	4,429,600	1 2 5¾
Religion, charities, education	2,222,500	0 11 3¼
Art and amusement	3,089,700	0 15 8
Books, newspapers, &c.	2,374,600	0 12 0½
Postage and telegrams, direct taxation	2,305,400	0 11 8¼
Household expenses not included elsewhere	8,731,900	2 4 3¾
Miscellaneous expenses	4,597,700	1 3 4
	£165,807,100	42 1 3

Daily expenditure

The expenditure in New South Wales for the year given amounted to £45 4s. 5½d. per head, or at the rate of 2s. 5¾d. per day. The daily expenditure may be thus distributed :—

	Pence per day.	Proportion of Expenditure.
Food	9·6	32·3
Clothing	4·7	15·8
Rent	3·7	12·5
Direct Taxes	0·4	1·3
Sundries	11·3	38·1
	29·7	100·0

Expenditure in other countries.

According to Mulhall the expenditure per inhabitant in the leading countries of Europe and in the United States is :—

Country.	Expenditure per Inhabitant.	Country.	Expenditure per Inhabitant.
	£ s. d.		£ s. d.
United Kingdom	29 14 9	Norway	19 0 0
France	23 19 4	Denmark	28 11 5
Germany	20 3 4	Holland	20 17 4
Russia	10 1 11	Belgium	25 8 2
Austria	14 4 9	Switzerland	18 0 0
Italy	11 11 0	United States	32 16 2
Spain	15 12 6	Canada	23 6 2
Portugal	11 5 6		
Sweden	20 8 4	Australasia	42 1 3

Cost of living, and earnings.

The table just given affords but a partial view of the question of the cost of living; for if the total earnings of the countries above enumerated be considered as an element of comparison, it will be found that few countries approach New South Wales in the small proportion of income absorbed in providing food for the people. The following table, given on the same authority as the preceding, shows that, while the actual cost of food and drink is £18 7s. 11d. in this Colony, and £17 2s. 3d. in Australasia, as against £14 4s. 9d. in Great Britain, the earnings required to pay for this food are not larger proportionately than

in the countries which show most favourably in the table. The number of working days in the year is assumed to be 300, allowing for thirteen days' sickness and fifty-two Sundays :—

Cost of food compared with earnings.

Country.	Average annual cost of food and beverage.	Ratio of cost of food to earnings.	Day's earnings equal to annual cost of food.
	£ s. d.	Per cent.	Days.
United Kingdom	14 4 9	42·2	127
France	12 4 5	44·0	132
Germany	10 18 5	49·1	148
Russia	5 19 7	52·0	156
Austria	7 17 4	50·8	152
Italy	6 4 10	51·2	153
Spain	8 9 0	51·2	154
Portugal	7 3 0	59·1	177
Sweden	9 18 11	45·2	136
Norway	9 15 0	47·6	143
Denmark	11 14 0	36·0	108
Holland	10 8 0	46·0	138
Belgium	12 3 1	43·4	130
Switzerland	8 11 7	45·2	135
United States	9 17 7	25·3	76
Canada	8 9 0	32·5	98
Australasia	17 2 3	32·8	98

EMPLOYMENT AND PRODUCTION.

Classification of workers formerly impossible.

TO obtain a fair approximation of the number of persons engaged in the various walks of life in Australasia was hitherto impossible, for although at the Census Enumerations of 1881 and previous years the occupations of the people were made a feature of the inquiry, the classification, which followed closely that originally devised by the late Dr. Farr, was unsatisfactory, as it completely failed to distinguish between producers and distributors. To avoid a repetition of this defect the Census Conference, held at Hobart in March, 1890, abandoned the English system and adopted a scheme of classification more in accordance with sound principles. Under this classification population is divided into two great sections—breadwinners and dependents—and the breadwinners are arranged in their natural classes of producers and distributors, with their various orders and sub-orders. The classes may be shortly defined as follows :—

Division of workers.

Section A.—Breadwinners.

Class I. Professional.
Class II. Domestic.
Class III. Commercial.
Class IV. Industrial.
Class V. Agricultural, Pastoral, Mineral, and other Primary Producers.
Class VI. Indefinite.

Section B.—Dependents : Non-Breadwinners.

Class VII. Dependents.

Description of classes.

The description of the various classes and orders, together with the number of males and females, exclusive of aborigines, belonging to each order are given in the following pages for all the

Australasian Colonies with the exception of South Australia, whence returns are not yet available.

Government and Defence.

Class I embraces all persons not otherwise classed, mainly engaged in the government and defence of the country, and in satisfying the intellectual, moral, and social wants of its inhabitants.

This class is divided into two orders :—

Order 1. Persons engaged in government, defence, law, and protection, not otherwise classed ; and

Order 2. Persons ministering to religion charity, health, education, art, and science.

Order 1 in its four sub-orders :—

1. General Government.
2. Local Government.
3. Defence ; and
4. Law and Order, contains the following number of persons :—

Colony.	Males.	Females.	Total.
New South Wales	7,183	89	7,272
Victoria	6,773	169	6,942
Queensland	3,579	31	3,610
Western Australia	601	5	606
Tasmania	1,050	6	1,056
New Zealand	3,027	20	3,047

Persons ministering to religion, &c.

Order 2 is divided into ten sub-orders as follows :—

1. Religion.
2. Charity, exclusive of hospitals.
3. Health.
4. Literature.
5. Science.
6. Civil and Mechanical Engineering, Architecture, and Surveying.
7. Education.
8. Fine Arts.
9. Music.
10. Amusements.

The number of persons enumerated in Order 2 is shown in the following table :—

Colony.	Males.	Females.	Total.
New South Wales	13,697	10,305	24,022
Victoria	13,221	9,565	22,786
Queensland	3,970	2,896	6,866
Western Australia	534	338	872
Tasmania	1,665	1,197	2,862
New Zealand	7,055	5,719	12,774

Total engaged in professions.

It must be pointed out in connection with Class I, that persons in the employment of the State are distributed, as far as possible, according to their special employment, and not included in sub-order 1 of order 1.

The following table shows the totals of Class I :—

Colony.	Males.	Females.	Total.
New South Wales	20,880	10,394	31,274
Victoria	19,994	9,734	29,728
Queensland	7,549	2,927	10,476
Western Australia	1,135	343	1,478
Tasmania	2,715	1,203	3,918
New Zealand	10,082	5,739	15,821

Persons engaged in domestic duties.

Class II embraces all persons engaged in the supply of board and lodging, and in rendering personal services, for which remuneration is usually paid. It contains one order, No. 3, in the consecutive series of orders, and is divided into two sub-orders.

1.—Board and lodging, and

2.—Attendance.

The numbers of people enumerated in Class II were :—

Colony.	Males.	Females.	Total.
New South Wales	17,563	40,830	58,393
Victoria	15,082	42,448	57,530
Queensland	5,963	14,423	20,386
Western Australia	1,135	1,540	2,675
Tasmania	1,429	5,751	7,180
New Zealand	5,537	19,391	24,928

As the definition of Class II points out, it includes only those persons performing domestic duties who are usually in receipt of money wages ; the much larger number of persons performing domestic duties without receiving money wages is enumerated amongst the dependents, Class VII, principally in sub-order 1 of order 23—persons employed in household duties.

Property and Finance.

Class III embraces all persons directly connected with the hire, sale, transfer, distribution, storage, and security of property and materials, and with the transport of persons and goods, or engaged in effecting communications. It is divided into four sub-classes.

A.—Property and Finance,
B.—Trade,
C.—Storage, and
D.—Transport and Communication.

The first of those sub-classes is comprised in one order, 4, described as persons who perform offices in connection with the exchange, valuation, insurance, lease, loan or custody of money, houses, land, or property rights.

Order 4 contains four sub-orders :—

1. Banking and Finance.
2. Insurance and Valuation.
3. Land and Household Property.
4. Property Rights not otherwise classed.

The following are the numbers of people enumerated in sub-class A, Order 4 :—

Colony.	Males.	Females.	Total.
New South Wales	6,904	651	7,555
Victoria	8,137	1,141	9,278
Queensland	2,589	337	2,926
Western Australia	372	51	423
Tasmania	1,147	515	1,662
New Zealand	3,414	342	3,756

Persons engaged in trade.

Sub-class B of Class III contains the seven Orders 5 to 11 inclusive, which are thus described :—

Order 5. Persons dealing in Art and Mechanic Productions, in which matters of various kinds are employed in combination.

Order 6. Persons engaged in the Sale, Hire, or Exchange of Textile Fabrics and Dress, and of Fibrous Materials.

Order 7. Persons engaged in dealing in Food, Drinks, Narcotics, and Stimulants.

Order 8. Persons engaged into dealing in and treating Animals, and dealing in Animal and Vegetable Substances, excluding dealers in Food.

Order 9. Persons engaged in dealing in Minerals, &c., mainly used for Fuel and Light.

Order 10. Persons engaged in dealing in Minerals other than for fuel ; and

Order 11. Persons engaged as General Dealers, Speculators on Chance Events, or in Undefined Mercantile Pursuits.

Dealers in art and mechanic production.

It has to be stated in connection with sub-class B that the rather numerous class of people who are manufacturers and dealers at the same time are classed amongst Manufacturers in Class IV, and that those who are both primary producers and dealers are grouped amongst the Primary Producers in Class V. Persons who are engaged both in dealing and in transportation are classed in sub-class D of Class III.

Order 5 is divided into seventeen sub-orders, as follows :—

1. Books, Publications, and Advertising.
2. Musical Instruments.
3. Prints, Pictures, and Art Materials.
4. Ornaments, Minor Art Products, and Small Wares.
5. Equipment for Sports and Games.
6. Designs, Medals, Type, and Dies.
7. Watches, Clocks, and Scientific Instruments.
8. Surgical Instruments and Appliances.
9. Arms and Explosives.
10. Machines, Tools, and Implements.
11. Carriages and Vehicles.
12. Harness, Saddlery, and Leatherware.
13. Ships, Boats, and Marine Stores.
14. Building Materials and House Fittings (not elsewhere classed.)
15. Furniture.
16. Chemicals and by-products.
17. Paper and Paper-makers' Materials.

The persons enumerated in Order 5 are shown in the following table :—

Colony.	Males.	Females.	Total.
New South Wales	3,022	241	3,263
Victoria	2,118	414	2,532
Queensland	632	80	712
Western Australia	81	3	84
Tasmania	240	36	276
New Zealand	1,321	183	1,504

Engaged in sale of textiles.

Order 6 contains the following three sub-orders :—

1. Textile Fabrics,
2. Dress,
3. Fibrous Materials,

in which the persons shown below were enumerated :—

Colony.	Males.	Females.	Total.
New South Wales	5,048	881	5,929
Victoria	5,163	901	6,064
Queensland	1,181	248	1,429
Western Australia	71	39	110
Tasmania	467	120	587
New Zealand	2,634	510	3,144

Engaged in sale of food.

Order 7 is also divided into three sub-orders, namely :—

1. Animal Food,
2. Vegetable Food,
3. Drinks, Narcotics, and Stimulants.

It contains the following numbers of people :—

Colony.	Males.	Females.	Total.
New South Wales	13,053	1,461	14,514
Victoria	13,052	1,401	14,453
Queensland	4,032	338	4,370
Western Australia	234	11	245
Tasmania	1,091	186	1,277
New Zealand	6,478	557	7,035

Dealers in animals, &c.

Order 8 comprises six sub-orders, persons dealing in :—

1. Living Animals.
2. Manures and Animal Waste Products.
3. Leather, Raw Materials, and Manufactures.
4. Other Animal Matters.
5. Seeds, Plants, Flowers, Vegetable Products for Fodder and Gardening Purposes.
6. Other Vegetable Matter not included elsewhere.

The following table shows the number of persons classified in Order 8:—

Colony.	Males.	Females.	Total.
New South Wales	2,958	58	3,016
Victoria	4,503	269	4,772
Queensland	774	9	783
Western Australia	77	.....	77
Tasmania	124	.....	124
New Zealand	1,282	5	1,287

Persons dealing in fuel, &c.

Order 9, which contains persons dealing in Minerals, &c., mainly used for Fuel and Light, is not further subdivided. The persons enumerated in this order are shown below :—

Colony.	Males.	Females.	Total.
New South Wales	1,361	8	1,369
Victoria	1,896	65	1,961
Queensland	63	3	66
Western Australia	1	.....	1
Tasmania	195	1	196
New Zealand	391	6	397

Dealers in metals.

Order 10 is divided into three sub-orders, containing persons dealing in—

1. Stone, Clay, Earthenware, Glass, and Minerals not otherwise classed.
2. Gold, Silver, and Precious Stones.
3. Metals other than Gold and Silver.

The following are the numbers of persons enumerated in this order :—

Colony.	Males.	Females.	Total.
New South Wales	1,490	27	1,517
Victoria	1,648	17	1,665
Queensland	401	4	405
Western Australia	15	1	16
Tasmania	155	13	168
New Zealand	838	8	846

Speculators.

Order 11, the last of the orders comprised in sub-class B, is divided into three sub-orders :—

1. General Dealers (undefined).
2. Speculators on Chance Events.
3. Other Mercantile Persons undefined.

The persons enumerated in this order are shown in the following table :—

Colony.	Males.	Females.	Total.
New South Wales	17,048	1,909	18,957
Victoria	23,452	3,509	26,961
Queensland	5,900	889	6,789
Western Australia	980	164	1,144
Tasmania	1,762	270	2,032
New Zealand	7,669	1,110	8,779

Traders of all kinds.

The subjoined table shows the totals of the seven orders comprised in sub-class B of Class III :—

Colony.	Males.	Females.	Total.
New South Wales	43,980	4,585	48,565
Victoria	51,832	6,576	58,408
Queensland	12,983	1,571	14,554
Western Australia	1,459	218	1,677
Tasmania	4,034	626	4,660
New Zealand	20,613	2,379	22,992

Persons engaged in storage.

Sub-class C of Order 3 comprises only Order 12, Persons engaged in Storage, and this order is not further divided into sub-orders. The numbers of persons belonging to it in the different Colonies are shown below :—

Colony.	Males.	Females.	Total.
New South Wales	78	1	79
Victoria	383	7	390
Queensland	397	.....	397
Western Australia	33	.....	33
Tasmania	4	.....	4
New Zealand	1,034	1	1,035

Carriers.

Sub-class D contains one order, numbered 13, Persons engaged in the Transport of Passengers, Goods, or Communications. This order is divided into the following six sub-orders :—

1. Persons engaged on Railways (not Railway Construction) or Steam Tramways.
2. On Roads.
3. On Seas, Rivers, and Canals.
4. On Postal Service.
5. On Telegraph and Telephone Service.
6. Delivery of Documents, Parcels, and Messages.

Persons engaged in transport.

As the subjoined table shows, this order is a very numerous one :—

Colony.	Males.	Females.	Total.
New South Wales	30,873	500	31,373
Victoria	29,930	1,544	31,474
Queensland	13,142	252	13,394
Western Australia	2,833	52	2,885
Tasmania	3,057	210	3,267
New Zealand	15,269	144	15,413

The totals of the ten orders 4 to 13 inclusive, comprised in Class III, are shown in the following table :—

Colony.	Males.	Females.	Total.
New South Wales	81,835	5,737	87,572
Victoria	90,282	9,268	99,550
Queensland	29,111	2,160	31,271
Western Australia	4,697	321	5,018
Tasmania	8,242	1,351	9,593
New Zealand	40,330	2,866	43,196

Industrial workers.

Class IV embraces all persons not otherwise classed, who are principally engaged in various works of utility, or in specialities connected with the manufacture, construction, modification, or alteration of materials so as to render them more available for the various uses of man, but excluding, as far as possible, all who are mainly or solely in the service of commercial interchange.

This class is divided into the following seven orders :—

Order 14. Persons engaged in connection with the manufacture or in other processes relating to art and mechanic productions, in which materials of various kinds are employed in combination.

Order 15. Persons engaged in connection with the manufacture, or in repairs, cleansing, or in other processes relating to textile fabrics, dress, and fibrous materials.

Order 16. Persons engaged in connection with the manufacture or in other processes relating to food, drink, narcotics, and stimulants.

Order 17. Persons, not otherwise classed, engaged in connection with manufactures or other processes connected with animal and vegetable substances.

Order 18. Persons engaged in the alteration, modification, or manufacture, or in other processes relating to metals or mineral matters. Industrial workers.

Order 19. Persons engaged in the construction or repair of buildings, roads, railways, canals, docks, earthworks, &c.; in the disposal of silt, dead matter, or refuse, or in operations the nature of which is undefined.

Order 20. Industrial workers imperfectly defined.

Persons who are both primary producers and manufacturers are not included in this class, but grouped in Class V, amongst primary producers.

Order 14 contains the following fifteen sub-orders :—

1. Books and publications.
2. Musical instruments.
3. Prints, pictures, and art materials.
4. Ornaments, minor art products, and small wares.
5. Equipment for sports and games.
6. Designs, medals, type, and dies.
7. Watches, clocks, and scientific instruments.
8. Surgical instruments and appliances.
9. Arms and explosives.
10. Machines, tools, and implements.
11. Carriages and vehicles.
12. Harness, saddlery, leather, leatherware.
13. Ships, boats, and their equipment.
14. Furniture.
15. Chemicals and by-products.

The number of persons belonging to this order is as follows :— Persons engaged in art and mechanic productions.

Colony.	Males.	Females.	Total.
New South Wales	18,478	591	19,069
Victoria	28,130	1,024	29,154
Queensland	4,875	138	5,013
Western Australia	1,946	41	1,987
Tasmania	1,528	36	1,564
New Zealand	9,379	293	9,672

Textile workers.

Order 15 is divided into three sub-orders :—

1. Textile fabrics.
2. Dress
3. Fibrous materials.

It comprises the following numbers of persons :—

Colony.	Males.	Females.	Total.
New South Wales	7,637	16,878	24,515
Victoria	10,941	26,498	37,439
Queensland	2,546	4,869	7,415
Western Australia	85	385	440
Tasmania	1,127	1,676	2,803
New Zealand	8,698	10,739	19,437

Manufacturing food products.

Order 16 is also divided into three sub-orders as follows :—

1. Animal Food,
2. Vegetable Food,
3. Drinks, Narcotics, and Stimulants.

The numbers of persons classified under this order are shown below :—

Colony.	Males.	Females.	Total.
New South Wales	6,653	247	6,900
Victoria	7,188	429	7,617
Queensland	2,155	125	2,280
Western Australia	258	6	264
Tasmania	754	61	815
New Zealand	4,299	154	4,453

Treating animal or vegetable substances.

Order 17 comprises the following four sub-orders :—

1. Animal Matters (not otherwise classed).
2. Working in Wood (not elsewhere classed).
3. Workers in Vegetable Produce for Fodder.
4. Paper Manufacturers.

The following table shows the persons enumerated in this order :—

Colony.	Males.	Females.	Total.
New South Wales	6,881	31	6,912
Victoria	6,394	289	6,683
Queensland	2,879	7	2,886
Western Australia	615	1	616
Tasmania	781	7	788
New Zealand	3,523	40	3,563

Order 18 also comprises four sub-orders :— Persons treating metals and minerals.

1. Persons engaged in the Conversion of Coal and other Substances to purposes of Heat, Light, or forms of energy, not otherwise classed.
2. Manufacturers and Processes related to Stone, Clay, Earthenware, Glass, and Minerals not otherwise classed.
3. Precious Metals and Precious Stones.
4. Other Metals.

The numbers of persons enumerated in this order are shown in the following table :—

Colony.	Males.	Females.	Total.
New South Wales	13,053	8	13,061
Victoria	15,373	66	15,439
Queensland	4,195	6	4,201
Western Australia	520	1	521
Tasmania	1,488	2	1,490
New Zealand	5,742	26	5,768

Orders 14 to 18, of Class IV, comprise all those who may properly be classed as finding employment in the manufacturing industries of the Colonies. The classification includes persons employed in factories as well as those who work in their own homes, the latter being especially numerous in Order 15, where there is a great preponderance of female workers. A summary of the first five orders of Class IV is given below :— Total of industrial workers.

Colony.	Males.	Females.	Total
New South Wales	52,702	17,755	70,457
Victoria	68,026	28,306	96,332
Queensland	16,650	5,145	21,795
Western Australia	3,424	404	3,828
Tasmania	5,678	1,782	7,460
New Zealand	31,641	11,252	42,893

The horse-power employed in manufactories is known only in the case of four Colonies, viz. :— Horse-power.

New South Wales	30,469
Victoria	31,614
South Australia	7,449
New Zealand	21,696

Value of plant.

The value of the plant employed during 1891 is returned only for New South Wales and Victoria, and is given as follows :—

New South Wales	£4,661,282
Victoria	7,223,729

With regard to Tasmania, the value of land, buildings, and plant is stated to be £564,775, while a similar return for New Zealand places the figure at £5,261,826. Assuming 40 per cent. of these amounts to represent the plant alone, the values would be—

Tasmania	£ 226,000
New Zealand	2,104,700

The value of the plant in the remaining three Colonies has been estimated as follows :—

Queensland	£1,388,100
South Australia	1,210,000
Western Australia	124,500

The gross value of articles produced in manufacturing establishments is known in the case of three Colonies, and is stated as follows :—

New South Wales	£16,625,258
Tasmania	858,171
New Zealand	8,773,837

Value of materials used.

The foregoing figures include, of course, the value of materials used, of wages paid, and of fuel. In New South Wales the returns obtained under the Census and Industrial Returns Act show that the value of materials used was £7,382,070, of wages paid £4,831,308, and of fuel £375,927, together £12,589,305, thus leaving the net value of production at £4,035,953. In New Zealand the value of materials used is given as £3,471,304, and of wages paid as £1,808,640, while the value of fuel may be estimated at £267,000, together £5,546,944, so that the net value of production would amount to £3,226,893. Similar figures for Tasmania are not available. Taking Australasia as a whole, it may be said that manufacturing, properly so called, is in its infancy. Most of the hands are employed in works depending on the natural production of the country, or in what may be termed domestic industries—that is, furnishing the supply of goods which must of necessity be produced on the spot. The Colony of Victoria

is perhaps of all the Colonies the possessor of the most varied classes of industries; but the signs are not wanting that other Colonies will soon seek in manufacturing industries outlets for capital which they have hitherto found in other channels.

Employed building or constructing.

The remaining two orders of the industrial class contain together quite as many persons as the five orders already mentioned. Order 19 is divided into three sub-orders, as follows:—

1. Houses and Buildings.
2. Roads, Railways, Earthworks, &c., or undefined.
3. Disposition of Dead Matter or Refuse.

The following figures show the numbers of persons classified under this order:—

Colony.	Males.	Females.	Total.
New South South Wales	38,024	3	38,027
Victoria	33,545	18	33,563
Queensland	10,763	4	10,767
Western Australia	913	3	920
Tasmania	5,166	...	5,166
New Zealand	12,667	12	12,679

Order 20, which is not divided into sub-orders, comprises industrial workers imperfectly defined. The numbers of persons enumerated in this order are as follow:—

Colony.	Males.	Females.	Total.
New South Wales	32,427	30	32,457
Victoria	38,195	349	38,544
Queensland	14,602	20	14,622
Western Australia	1,632	...	1,632
Tasmania	3,350	40	3,390
New Zealand	14,888	61	14,949

The totals for Class IV are shown in the following table:—

Colony.	Males.	Females.	Total.
New South Wales	123,153	17,788	140,941
Victoria	139,766	28,673	168,439
Queensland	42,015	5,169	47,184
Western Australia	5,973	407	6,380
Tasmania	14,194	1,822	16,016
New Zealand	59,196	11,325	70,521

Primary industries.

Class V embraces all persons mainly engaged in the cultivation or acquisition of food products, and in obtaining other raw materials from natural sources. Order 21 is the only order comprised in this class, and is defined as containing persons directly

Classification of primary workers.

engaged in the cultivation of land, or in rearing or breeding animals, or in obtaining raw products from natural sources. This order is divided into six sub-orders, as follows:—

1. Agricultural Pursuits.
2. Pastoral Pusuits.
3. Fisheries, the Capture, Preservation, or Destruction of Wild Animals, or the acquisition of Products yielded by Wild Animals.
4. Forestry, or the acquisition of Raw Products yielded by Natural Vegetation.
5. Persons engaged in the Conservancy of Water in all its forms, and in Water Supply from Natural Sources.
6. Mines, Quarries, or the acquisition of Natural Mineral Products.

No broad distinction, pastoral and agricultural workers.

The conditions of production in the Australasian Colonies are such that it is difficult to draw a marked line of separation between the followers of the various pursuits. A man may be set down as engaged in agriculture, while at the same time he may be engaged in stock-raising or dairy-farming. As a matter of fact there are few farmers who are not so engaged. A false impression of the value of agricultural or pastoral production would therefore be obtained if the total value of production hereafter given were divided by the number of hands employed and the value set down as the production per head.

Agricultural pursuits.

In each Australasian Colony fully one half of the total number of persons belonging to Class V are returned as being engaged in Agricultural pursuits, and in some cases they amount to two-thirds of the total. The figures for each Colony are as follow:—

Colony.	Males.	Females.	Total.
New South Wales	67,524	1,022	68,546
Victoria	79,090	6,028	85,118
Queensland	33,891	6,089	39,980
Western Australia	4,378	164	4,542
Tasmania	14,584	1,447	16,031
New Zealand	56,671	2,387	59,058

Pastoral pursuits.

The number of people engaged in pastoral pursuits is very much larger in New South Wales than in any of the other Colonies, as will be seen from the following table :—

Colony.	Males.	Females.	Total.
New South Wales	31,052	1,092	32,144
Victoria	10,510	4,814	15,324
Queensland	13,651	653	14,304
Western Australia	1,705	170	1,875
Tasmania	2,040	407	2,447
New Zealand	9,279	270	9,549

Fisheries.

Those engaged in fisheries, in preserving, capturing, or destroying wild animals are not a very numerous class, as the following figures show :—

Colony.	Males.	Females.	Total.
New South Wales	1,664	2	1,666
Victoria	1,608	7	1,615
Queensland	786	12	798
Western Australia	537	5	542
Tasmania	486	25	511
New Zealand	1,895	5	1,900

Forestry.

The number of persons finding employment in forestry, or in the acquisition of natural vegetable products, is not much larger than the last-mentioned sub order :—

Colony.	Males.	Females.	Total.
New South Wales	1,651	2	1,653
Victoria	1,832	...	1,832
Queensland	1,102	...	1,102
Western Australia	299	2	301
Tasmania	543	2	545
New Zealand	2,988	...	2,988

Water conservancy.

In the two last-mentioned sub-orders the number of persons enumerated in New Zealand is larger than that in any of the other Colonies, while in the following sub-order, comprising the people engaged in water-conservancy and supply, the number enumerated in New South Wales is larger than that enumerated in all the other Colonies together :—

Colony.	Males.	Females.	Total.
New South Wales	1,761	1	1,762
Victoria	395	1	396
Queensland	181	...	181
Western Australia	216	1	217
Tasmania	46	...	46
New Zealand	121	1	121

Miners.

The sixth sub-order of primary producers are the persons engaged in mines, quarries, or the acquisition of natural mineral products. The numbers enumerated in each Colony are as follow :—

Colony.	Males.	Females.	Total.
New South Wales	30,603	1	30,604
Victoria	24,638	11	24,649
Queensland	11,622	5	11,627
Western Australia	1,269	..	1,269
Tasmania	3,987	1	3,988
New Zealand	16,906	23	16,929

The total number of primary producers is therefore as follows —

Colony.	Males.	Females.	Total.
New South Wales	134,255	2,120	136,375
Victoria	118,073	10,861	128,934
Queensland	61,233	6,759	67,992
Western Australia	8,404	342	8,746
Tasmania	21,686	1,882	23,568
New Zealand	87,860	2,686	90,546

Full particulars regarding the value of the labour of primary producers are given in previous chapters, and a summary will be found at the close of this chapter.

Independent class.

Class VI is the last class of bread-winners to be considered. It only comprises one order, 22, defined as persons whose occupations are undefined or unknown, embracing those who derive incomes from sources which cannot be directly related to any other class. It is divided into two sub-orders, as follows :—

1. Persons of independent means, having no specific occupation, or undefined.
2. Others undefined, both as regards means and particular occupation.

The number of persons enumerated in Class VI is shown in the following table :—

Colony.	Males.	Females.	Total.
New South Wales	4,750	5,632	10,382
Victoria	4,488	13,286	17,774
Queensland	1,844	549	2,393
Western Australia	300	208	508
Tasmania	567	569	1,136
New Zealand	4,341	3,410	7,751

The subjoined table summarises the six classes of bread-winners in each Colony :— Total of bread-winners.

Colony.	Males.	Females.	Total.
New South Wales	382,436	82,501	464,937
Victoria	387,685	114,270	501,955
Queensland	147,715	31,987	179,702
Western Australia	21,644	3,161	24,805
Tasmania	48,833	12,578	61,411
New Zealand	207,346	45,417	252,763

As would naturally be expected the males greatly preponderate in all the foregoing classes, except Class II, where, owing to the great number of females included in sub-order 2, Attendance, there is a preponderance of females for the whole class. The only other sub-order in which this takes place is Class IV, Order 15, sub-order 2, Persons engaged in the Manufacture of Dress, but the percentage which this sub-order bears to the whole class is not high enough to affect the figures relating to the class. In sub-order 1 of Class VI, which comprises persons of independent means, females also outnumber males in New South Wales, Victoria, and Tasmania. In Class VII, on the other hand, there Dependents. is a great preponderance of females. This class is defined as embracing all persons dependent upon relatives or natural guardians; including wives, children, and relatives not otherwise engaged in pursuits for which remuneration is paid ; and all persons depending upon private charity, or whose support is a burthen on the public revenue. It is divided into two orders, as follows :—

Order 23—Persons dependent upon Natural Guardians ; and

Order 24—Persons dependent upon the State, or upon Public or Private Support.

Order 23 is further divided into three sub-orders, viz. :—

1. Persons engaged in domestic duties for which remuneration is not paid.
2. Dependent Scholars and Students.
3. Dependent Relatives not stated to be performing domestic duties.

Dependents.

The numbers of persons enumerated in Order 23 are shown below :—

Colony.	Males.	Females.	Total.
New South Wales	214,525	428,961	643,486
Victoria	198,129	421,498	619,627
Queensland	72,975	136,571	209,546
Western Australia	7,903	16,641	24,544
Tasmania	27,603	55,860	83,463
New Zealand	122,410	246,768	369,178

Order 24 is divided into the following two sub-orders :—

1. Persons supported by Voluntary or State Contributions.
2. Criminal Class.

The following table shows the persons enumerated in this order in each Colony :—

Colony.	Males.	Females.	Total.
New South Wales	8,520	3,958	12,478
Victoria	6,792	4,562	11,354
Queensland	3,089	1,381	4,470
Western Australia	260	173	433
Tasmania	1,124	669	1,793
New Zealand	3,121	1,596	4,717

Criminal class.

A large proportion of the persons enumerated in this Order are prisoners, the number of such included in sub-order 2 being in—

Colony.	Males.	Females.	Total.
New South Wales	2,308	346	2,654
Victoria	1,484	302	1,786

The total number of persons enumerated in Class VII is, therefore, as follows :—

Colony.	Males.	Females.	Total.
New South Wales	223,045	432,919	655,964
Victoria	204,921	426,060	630,981
Queensland	76,064	137,952	214,016
Western Australia	8,163	16,814	24,977
Tasmania	28,727	56,529	85,256
New Zealand	125,531	248,364	373,895

A small residue of the population remains to be accounted for—those who, from the way in which their schedules were filled in, could not be defined as bread-winners or dependents. In

Queensland, Western Australia, Tasmania, and New Zealand, these people seem to have been included in sub-order 2, of Class VI, while in New South Wales and Victoria they were tabulated as unspecified, and numbered :— Persons of no specific calling.

Colony.	Males.	Females.	Total.
New South Wales	2,522	531	3,053
Victoria	5,483	1,421	6,904

In the following table are shown the totals of the seven classes of occupations for each Colony, a distinction being made between bread-winners and dependents :— Workers in each Colony.

Class.		Colonies.					
		New South Wales.	Victoria.	Queensland.	Western Australia	Tasmania.	New Zealand.
I. Professional.	Males ..	20,880	19,994	7,549	1,135	2,715	10,082
	Females	10,394	9,734	2,927	343	1,203	5,739
	Total ..	31,274	29,728	10,476	1,478	3,918	15,821
II. Domestic.	Males ..	17,563	15,082	5,963	1,135	1,429	5,537
	Females	40,830	42,448	14,423	1,540	5,751	19,391
	Total ..	58,393	57,530	20,386	2,675	7,180	24,928
III. Commercial.	Males ..	81,835	90,282	29,111	4,697	8,242	40,330
	Females	5,737	9,268	2,160	321	1,351	2,866
	Total ..	87,572	99,550	31,271	5,018	9,593	43,196
IV. Industrial.	Males ..	123,153	139,766	42,015	5,973	14,194	59,196
	Females	17,788	28,673	5,169	407	1,822	11,325
	Total ..	140,941	168,439	47,184	6,380	16,016	70,521
V. Primary Producers.	Males ..	134,255	118,073	61,233	8,404	21,686	87,860
	Females	2,120	10,861	6,759	342	1,882	2,686
	Total ..	136,375	128,934	67,992	8,746	23,568	90,546
VI. Indefinite.	Males ..	4,750	4,488	1,844	300	567	4,341
	Females	5,632	13,286	549	208	569	3,410
	Total ..	10,382	17,774	2,393	508	1,136	7,751
Total Breadwinners.	Males ..	382,436	387,685	147,715	21,644	48,833	207,346
	Females	82,501	114,270	31,987	3,161	12,578	45,417
	Total ..	464,937	501,955	179,702	24,805	61,411	252,763
VII. Dependents.	Males ..	223,045	204,921	76,064	8,163	28,727	125,531
	Females	432,919	426,060	137,952	16,814	56,529	248,364
	Total ..	655,964	630,981	214,016	24,977	85,256	373,895
Unspecified.	Males ..	2,522	5,483	....	....	....	....
	Females	531	1,421	....	....	....	.....
	Total ..	3,053	6,904	....	....	....	....
Total Population.	Males ..	608,033	598,089	223,779	29,807	77,560	332,877
	Females	515,951	541,751	169,939	19,975	69,107	293,781
	Total ..	1,123,954	1,139,840	393,718	49,782	146,667	626,658

Value of production.

For the year 1891–92, the value of primary production was £89,860,500, of which amount the total share of each Colony, and the value per inhabitant in each Colony, were as follows :—

Colony.	Value of Primary Production.	Value per Inhabitant.
		£ s. d.
New South Wales	28,942,360	25 6 2
Victoria	19,919,610	17 7 4
Queensland	12,545,660	31 4 8
South Australia	6,841,675	21 1 1
Western Australia	1,468,340	29 9 10
Tasmania	3,023,940	20 6 0
New Zealand	17,118,915	27 3 5
Australasia	89,860,500	23 7 4

Distribution of production.

The distribution of the production of the Colonies, under the various branches of primary industries, was as follows :—

Colony.	Agriculture.	Pastoral Industries.	Dairying, Poultry-Farming, &c.	Mineral Production.	Forestry and Fisheries.
	£	£	£	£	£
New South Wales	3,584,500	14,725,000	2,735,600	6,395,560	1,501,700
Victoria	7,009,100	6,283,000	3,038,000	2,339,510	1,250,000
Queensland	1,922,000	6,616,000	945,400	2,299,560	762,700
South Australia	3,045,200	2,379,600	768,925	365,950	282,000
Western Australia	380,900	532,000	115,350	130,090	310,000
Tasmania	1,046,300	735,000	382,550	516,390	343,700
New Zealand	5,518,000	6,957,000	2,196,225	1,403,630	*1,044,060
Australasia	22,506,000	38,227,600	10,182,050	13,450,690	5,494,160

* Kauri gum production included hereunder.

Comparison with older countries.

Compared with the older countries of the world, the amounts stated above are by no means insignificant, and as regards production per head, Australia exceeds any other country of which the records are available. Although the data are incomplete on which an exact statement can be founded, there is sufficient information to warrant the assertion that from primary industries

alone, Australasia produces more per inhabitant than the combined industries of any other country, and a consideration of this fact will perhaps explain the general prosperity which these Colonies have enjoyed, and the ease with which they bear their apparently great indebtedness. The following figures, showing particulars respecting the primary industries of the world, are taken from Mulhall's Dictionary:— Australia compares favourably.

Country.	Total.	Per head of Population.		
	£	£	s.	d.
United Kingdom	311,000,000	8	2	10
France	470,000,000	12	2	3
Germany	449,000,000	9	4	9
Russia	578,000,000	6	5	8
Austria	337,000,000	8	8	1
Italy	206,000,000	6	16	0
Spain	177,000,000	10	1	1
Portugal	32,000,000	6	16	2
Sweden	50,000,000	10	8	4
Norway	18,000,000	9	0	0
Denmark	35,000,000	16	13	4
Holland	39,000,000	8	9	7
Belgium	62,000,000	10	3	3
Switzerland	19,000,000	6	6	8
United States	883,000,000	14	2	7
Canada	59,000,000	11	7	7
Argentina	42,000,000	13	11	0
Australasia (1891–92)	89,860,500	23	7	4

Judged by the aggregate production, New South Wales stands far above the other Colonies, a position which it owes to the largeness of its interests in pastoral pursuits. The value of the return from this industry was £14,725,000, a sum greater than the total production of every Colony except Victoria and New Zealand from all primary industries. As regards the average production per inhabitant, Queensland stands first and Western Australia second, while Victoria is lowest, with little more than one half of the production per head of the first-named Colony. Such a condition of things is only what might be anticipated from the circumstances of the Colonies. But a comparison of the production of the Colonies from primary industries per head of population is liable to give a

Aggregate production of New South Wales.

Production per inhabitant.

fallacious importance to the Colonies with large territories and scanty population, for it is but a natural expectation that where the population of a country is dense, a large proportion of it will be engaged in other than primary industries. If the production be compared with the extent of territory enjoyed by each Colony it will be found that the positions of several of the Colonies are reversed. Thus Victoria occupies first position with an average production of £226 13s. 2d. per square mile, while Western Australia has the lowest return of £1 7s. 8d. The following, as well as the preceding table, bear testimony to the great natural resources of New Zealand, which has an average production per head of £27 3s. 5d. and per square mile of £163 17s. 3d. :—

Production compared with area.

Colony.	Total production per square mile.		
	£	s.	d.
New South Wales	93	3	1
Victoria	226	13	2
Queensland	18	15	4
South Australia	7	11	5
Western Australia	1	7	8
Tasmania	115	7	0
New Zealand	163	17	3
Australasia	28	8	6

LOCAL GOVERNMENT.

MUNICIPAL INSTITUTIONS.

Commencement of municipal government in Australasia.

PRIOR to 1842 no municipal institutions existed in Australasia. On the 20th July of that year an Act of the Legislative Council of New South Wales (6 Vic. No. 3) was assented to, providing for the incorporation of Sydney, and on the 12th of the following month another Act (6 Vic. No. 7) was passed, which granted municipal government to Melbourne. In the former case the town was raised to the dignity of a city. Melbourne was, however, proclaimed a town, and remained as such till 1847, at which date letters patent were received conferring the same privilege as that enjoyed by Sydney. In 1849 municipal government was instituted in South Australia by the incorporation of Adelaide. In New Zealand an Act was passed in 1852, dividing the Colony into six provinces, the local administration of which was vested in provincial Councils. This system remained in force till 1876, when the measure was repealed, and the whole Colony, except the area within the forty-one boroughs then existing, was subdivided into counties, and a system of local county government came into operation. In 1858 Hobart, in Tasmania, was incorporated, and in 1859 systems of local government were initiated in Queensland and Western Australia by the incorporation of Brisbane and Perth. In Victoria a general system of local government came into force in 1874. Queensland adopted a general system in 1879, and South Australia in 1887.

Powers of corporate bodies.

The power of corporate bodies to impose taxation for local purposes differs considerably in New South Wales, Tasmania, and Western Australia, from that existing in the remaining Colonies of the group. As will be seen in the following table, the Colonies mentioned have a considerable area outside local supervision; the

Small area incorporated in some Colonies.

disproportion between the incorporated and unincorporated areas in New South Wales is specially marked. The incorporated and unincorporated areas and the various classes of municipal divisions for each Colony for which there is information were as given herewith. The returns from New Zealand and Western Australia are not to hand :—

Colony.	Incorporated Areas, divided into—	Area of Incorporated Districts.	Area still under control of Central Government.
		sq. miles.	sq. miles.
New South Wales	Boroughs and Municipalities ...	2,426	308,274
Victoria	Cities, Towns, Boroughs, and Shires	87,078	806
Queensland	Boroughs, Shires, and Divisions	668,252	245
South Australia...	Corporations and District Council Divisions	42,527	28,084
Tasmania.....	Municipalities, Town Districts, and Road Trusts	11,160	15,056

Rates—how assessed.

In New South Wales, Victoria, South Australia, Western Australia, and Tasmania, the rates are assessed on the annual value; in Queensland, on the capital value ; and in New Zealand the property within counties and road districts is assessed on the capital value, while in boroughs and town districts both descriptions of assessment are adopted. The returns for each Colony were :—

Colony.	Capital Value.	Annual Value.
	£	£
New South Wales	144,277,400	8,697,503
Victoria	203,351,360	13,733,770
Queensland	49,154,977	*.....
South Australia	*.....	2,543,526
Tasmania.....	*.....	1,384,238
New Zealand	75,920,027	2,117,392

* No returns.

The annual value shown for Tasmania is to a certain extent overstated by the fact that the same property may be rated separately for one or more assessments, as for Municipal, Road

Trust, or Town Board purposes. The New Zealand returns are similarly affected, some of the various divisions overlapping, but the error from this source can be but small. There are no returns from Western Australia.

Total Revenue and Expenditure.

The revenue and expenditure of local bodies previously particularised is given below. In the receipts, the amount of the Government endowment is specified, while in the expenditure the outlay on public works is similarly treated :—

Colony.	Receipts.			Expenditure.		
	Government.	Rates, &c.	Total.	Public Works.	Other.	Total.
New South Wales.....	168,306	826,608	994,914	649,230	441,306	1,090,536
Victoria	514,375	1,365,486	1,879,861	1,201,275	896,111	2,097,386
Queensland	159,253	347,983	507,236	341,219	189,550	530,769
South Australia	131,843	218,980	350,823	222,988	130,543	353,531
Tasmania	26,182	120,534	146,716	.....	.....	151,405
New Zealand	118,941	846,168	965,109	495,252	460,399	955,651

Through the inclusion of the Loan Accounts in the general returns, the expenditure per inhabitant in each case, shows an excess over the revenue per head. A vigorous works policy must, however be maintained till the various incorporated areas are improved to the extent that will satisfy the demands of permanent settlement.

Revenue per head.

The revenue of local bodies per head of population in incorporated districts, and per square mile of territory in incorporated area, was, as far as could be ascertained, as follows :—

Colony.	Receipts per Inhabitant.									Receipts per Square Mile of Incorporated Area.		
	Government.			Other Sources.			Total.			Government.	Other Sources	Total.
	£	s.	d.	£	s.	d.	£	s.	d.	£	£	£
New South Wales ...	0	4	11	1	4	0	1	8	11	69·4	340·7	410·1
Victoria	0	9	0	1	3	10	1	12	10	5·9	15·7	21·6
Queensland	0	8	2	0	17	10	1	6	0	0·2	0·5	0·7
South Australia ...	0	8	8	0	14	6	1	3	2	3·1	5·2	8·3
Tasmania	0	3	6	0	16	2	0	19	8	2·3	10·8	13·1
New Zealand	0	3	9	1	6	10	1	10	7	...	...	...

The large revenue obtained per square mile in New South Wales is due to the circumstance already explained, that the area incorporated is small compared with the total territory of the Colony, and comprises for the most part only urban settlements.

Water and Sewerage works in New South Wales.

The Country Water Supply and Sewerage Act of New South Wales was passed in 1880. Under the provisions of this measure municipalities outside the county of Cumberland are entitled to construct, or have constructed for them by the Government, works for water supply and sewerage, provided the construction of the same be approved by the Governor-in-Council, and the municipalities agree to pay back the original cost of the works, with interest at the rate of 4 per cent. per annum. The Government pays the certified cost of the works, and the municipalities repay the Government by instalments extending over a period of sixty years. Under the operations of this Act twelve water supply works have been carried out by the Government and three by municipal councils. The amount advanced by the Government to local bodies under this Act to the end of 1892 was £299,580.

Water Supply and Irrigation Works in Victoria.

The Government of Victoria, prior to the establishment of the Trusts for Water Works, Irrigation, and Water Supply, advanced money from the Public Loans Account to local bodies requiring assistance to construct these works. The amount advanced for the development of the services to June, 1892, was £385,177, which has to be repaid into a sinking fund, or by annual instalments. The amount so repaid is £66,822. The figures just given are exclusive of the advances to the city of Ballarat for the water supply works, as these are now under a special commission. The outstanding debt of the Ballarat Water Commission is given on page 322. Under a special Act, the Government have power to advance funds to shires for the construction of tramways, and £60,511 has been so advanced up to June, 1892. In Queensland and New Zealand the Governments have advanced £682,897 and

£468,249 respectively for municipal purposes. In the former Colony the whole amount has been paid out of General Loans Account.

The amount of outstanding municipal loans for each Colony furnishing returns is shown below. The figures include the liabilities to the Government :— Municipal loans.

Colony.	Outstanding Loans.
	£
New South Wales	2,093,355
Victoria	3,522,468
Queensland	1,333,527
Tasmania	416,500
New Zealand	3,027,392

Against these gross liabilities sinking funds are established in some of the Colonies. The amount to the credit of local bodies in New South Wales and Victoria, was £162,747 and £225,216 respectively ; there is also a fund in Queensland, but the amount accumulated cannot be given. Sinking funds.

BOARDS AND TRUSTS.

In addition to the various forms of local government already mentioned there are bodies known as Boards, or Trusts, whose function it is to construct and supervise certain works which, generally speaking, have been established for the benefit of dis tricts differing from, and in most cases larger than, the areas incorporated for ordinary municipal purposes. These bodies are usually composed of members representing respectively the central government, the municipalities affected by the works in question, and other persons directly interested in the particular undertakings ; and as a rule they raise the funds necessary for carrying out the works they control, by means of rates on the Local Boards and Trusts.

assessed value of the properties benefited, just as is the case in regard to municipalities.

New South Wales.

In New South Wales there are the following Boards:—Metropolitan Board of Water Supply and Sewerage, which commenced by taking charge of the Water Supply in 1888, and assumed control of the Sewerage system in 1889; Hunter River District Board of Water Supply, formed in 1892; and the Wollongong Harbour Trust, instituted in 1889. This last-named body is the only one of the kind in the Colony, the works connected with shipping, and the improvements to navigation at Sydney, Newcastle, and other ports, being still carried out at the expense and under the supervision of the central government. An Act was assented to in 1890 empowering a private company, known as the Illawarra Harbour and Land Corporation, to construct works that would convert Lake Illawarra, some 50 miles south of Sydney, into a navigable port, by cutting a canal between the Lake and the sea. Nothing has yet been done, however, towards the actual carrying out of this work. There is also a Metropolitan Fire Brigades Board, on which the municipalities within the metropolitan area are represented, and towards the annual expense of which they contribute one-third.

Victoria.

In Victoria the port of Melbourne is under the control of a Harbour Trust, which was established as far back as 1877. A Tramway Trust, representing twelve of the metropolitan municipalities has been formed under the provisions of an Act passed in 1883. This body was intrusted with power to construct tramways through the streets of the municipalities interested, the requisite funds being raised by loans on the security of the tramways and the revenues of the municipal bodies connected with the undertaking. The Trust had the option of either working the tramways themselves or leasing them to a private company. They adopted the latter alternative, and the tramways are being worked on a thirty-two years' lease, commencing from 1884. In 1891 the Melbourne and Metropolitan Board of Works was established,

to construct and supervise all works connected with water supply, sewerage and drainage, in Melbourne and its suburbs. The Government is not directly represented on this Board, while on the Board of a similar nature in Sydney three members are nominated by the State. The reason for this is that in New South Wales the Government constructed the works and is responsible for the debt incurred in order to do so, while in Victoria the Board carries out the work of construction, in addition to the maintenance and management to which the operations of the Sydney Board are confined. Throughout Victoria there are Water Works Trusts and Irrigation and Water Supply Trusts. During 1892 there were fifty-three of the Water Works Trusts, by whom £863,870 was spent in construction, and there were twenty-nine Irrigation and Water Supply Trusts, by whom £812,859 was expended. The loan liability undertaken by the Government for the former service was £679,864, and for the latter £787,733. The annual value of the property liable to be rated by the Water-works Trust is £900,000, and by the Irrigation and Water Supply Trust, £295,932. As in New South Wales, the municipal bodies are represented on the Fire Brigade Boards, and bear a proportionate share of the expenses. Victoria.

In Queensland the water supply service forms part of the local government system; the works are proposed by the municipal bodies, but the Government constructs and supervises them, and when completed hands them over to the local authorities with their attendant liabilities. The latter form a debt to the State which is repaid in instalments. Queensland.

In South Australia and Western Australia there are no Boards or Trusts of any importance beyond the municipal bodies already mentioned. In the former Colony, however, extensive municipal powers exist for the construction of important local works. South Australia and Western Australia.

In Tasmania six Marine Boards, forming part of the local government system, have been established in different parts of Tasmania.

the Colony. The rural police come under the local government system, as the ratepayers who enjoy the benefits of police protection are obliged to bear the cost of administration. The control of the police is, however, under officers appointed by the central government.

New Zealand.

In New Zealand there are, in addition to the ordinary forms of Municipal Government, River and Harbour Boards, which are established throughout the Colony. The number of each at the end of 1891 was respectively twenty-eight and twenty-one. There is also a Drainage Board at Christchurch.

Returns of Boards and Trusts.

Complete returns of the Boards and Trusts for each Colony are not readily obtainable; the following table, however, gives important details in connection with some of these bodies :—

Board or Trust.	Receipts.			Expenditure.	Outstanding Loans.
	Government.	Other.	Total.		
New South Wales—	£	£	£	£	£
Metropolitan Board of Water Supply and Sewerage, 1892	...	243,813	243,813	241,368	5,001,529
Hunter District Water Supply and Sewerage	...	...	...	...	*417,322
Wollongong Harbour Trust..	5,000	2,660	7,660	5,847	.....
Victoria—					
Melbourne Harbour Trust...	...	180,328	180,328	478,649	2,000,000
Melbourne and Metropolitan Board of Works	...	...	...	...	2,248,917
Melbourne Tramways Trust	...	...	..	...	1,630,000
Water Works Trusts	...	...	...	...	679,864
Irrigation and Water Supply Trusts	...	...	...	...	787,733
Ballarat Water Commission	...	...	...	...	287,439
Queensland—					
Water Works	148,663	80,596	229,259	210,149	682,897
Tasmania—					
Marine Boards	23,303	21,764	45,067	61,490	.....
Light-houses.....	1,136	11,439	12,575	17,685	.....
Campbelltown Water Trust	...	601	601	793	.....
Road and Bridge Trusts.....	12,083	20,591	32,674	32,700	.....
Town Boards	1,889	967	2,856	3,098	3,500
New Zealand—					
River Boards	100	11,181	11,281	9,010	46,491
Harbour Boards	8,690	392,608	401,298	418,350	3,276,300
Drainage Board.....	...	17,557	17,557	17,455	200,000

* Water supply only.

Recently formed Boards.

As regards the Hunter District Board of Water Supply and Sewerage in New South Wales, and the Melbourne and Metropolitan Board of Works in Victoria, no details can be given. The former service was only established in 1892, and with regard to the latter, although it was instituted in 1891, no particulars are yet to hand, with the exception of the outstanding loan liabilities. The outstanding loans of Boards and Trusts for New South Wales constitute part of the Public Debt; the same is true also with regard to the amounts for Victoria, except the loans of the Tramway Trust, and the Melbourne Harbour Trust, which are not guaranteed. The liabilities shown for Queensland also form part of the Public Debt of that Colony, but the amounts given for New Zealand are not advanced from the General Loan Account. In the foregoing table, as well as in the one on page 319, referring to outstanding municipal loans, the advances made by the Governments to the borrowing bodies are included.

Loans part of Public Debt.

FINANCE.

GENERAL REVENUE AND EXPENDITURE.

THE functions of Government are much alike in all the provinces of Australasia, and, therefore, it is only to be expected that similar items of expenditure will be found in the budgets of each. The chief difference is the extent to which local requirements are provided for out of general revenue. In most of the Colonies the provision for local improvements is a matter very largely of local concern, but in New South Wales and Western Australia the central government still charges itself with the construction of public works of purely local character, especially in rural districts, hence the appearance in the statements of expenditure of these Colonies of items of large amount which find no parallel in the other Colonies. So far as New South Wales is concerned, the system is on all hands agreed to be wasteful, and open to much abuse, and there is some hope that a comprehensive system of local government may be passed into law at no distant date. All the Governments assist the local administrations by grants proportionate to the sum raised locally, and these subsidies are in some sense a set-off against the revenues which the State receives from public lands.

Need for local government in New South Wales.

Railway communications, electric telegraphs, and postal services are almost entirely in the hands of the State, and also, in some instances, water conservation, water supply, and sewerage works, and it is on account of the expenses of such services that the Australasian budgets mount up to such large figures.

Services undertaken by the State.

Public Income.

The total income of the Australasian Governments for the year 1891–2 amounted to £30,270,416, and their expenditure to £31,140,273, leaving an apparent deficit of £869,857. The revenue returns of all the Colonies are for the fiscal year only, and take no account of balances carried over from a previous year. This is an important consideration in dealing with Australasian finances, as the expenditure set against a particular year is quite irrespective of whether it rightly forms a charge against that year, or partly also against other years. The revenue and expenditure for each of the Colonies were as follows :—

Colony.	Total.		Per Inhabitant.	
	Revenue.	Expenditure.	Revenue.	Expenditure.
	£	£	£ s. d.	£ s. d.
New South Wales.....	10,501,104	10,536,820	8 17 10	8 18 5
Victoria	7,729,572	8,482,917	6 13 6	7 6 6
Queensland	3,473,716	3,625,281	8 9 4	8 16 8
South Australia.....	2,741,623	2,737,133	8 8 4	8 8 0
Western Australia ...	543,889	550,616	9 14 4	9 16 8
Tasmania	883,199	851,559	5 18 7	5 14 4
New Zealand	4,397,313	4,355,947	6 16 11	6 15 8
Australasia.....	30,270,416	31,140,273	7 14 4	7 18 10

Fiscal years.

The New South Wales and Western Australian returns are for the year ending December, 1892 ; those of Victoria, Queensland, and South Australia, are for the fiscal year ending with June, 1892. The New Zealand figures are for the year ending March 31, 1893, and the Tasmanian return is for the year which closed with December, 1891.

REVENUE.

Sources of revenue.

The revenue is mainly derived from taxation, which produced £12,182,771, and from public services, such as railways, post and telegraphs, which yielded £12,103,270 ; in all £24,286,041, or

over 80 per cent. of the total revenue. The following table shows the revenue of each Colony, arranged under the various heads :—

Colony.	Taxation.		Railways.	Post and Telegraphs.	Public Lands.	All other Revenue.	Total Revenue.
	Customs.	Other.					
	£	£	£	£	£	£	£
New South Wales ..	2,677,890	771,897	3,416,496	650,635	2,214,062	770,124	10,501,104
Victoria	2,388,961	783,446	3,098,251	484,635	519,379	454,900	7,729,572
Queensland	1,145,660	290,161	1,025,769	214,898	626,465	170,763	3,473,716
South Australia....	615,597	197,272	1,229,598	205,812	241,963	251,381	2,741,623
Western Australia..	276,554	23,169	94,258	35,572	78,628	35,708	543,889
Tasmania	376,130	126,009	168,046	73,150	85,233	54,631	883,199
New Zealand	1,642,590	867,435	1,174,099	232,051	300,675	180,463	4,397,313
Total, Australasia	9,123,382	3,059,389	10,206,517	1,896,753	4,066,405	1,917,970	30,270,416

Revenue per head.

The revenue per head averaged £7 14s. 4d., and ranged from £5 18s. 7d. for Tasmania, to £9 14s. 4d. for Western Australia. The rate for each Colony, subdivided into the classification adopted in the previous table, was as follows :—

Colony.	Taxation.		Railways	Post and Telegraphs.	Public Lands.	All Other Revenue.	Total Revenue.
	Customs.	Other.					
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
New South Wales	2 5 4	0 13 1	2 17 10	0 11 0	1 17 6	0 13 1	8 17 10
Victoria	2 1 3	0 13 7	2 13 6	0 8 5	0 9 0	0 7 9	6 13 6
Queensland	2 15 10	0 14 2	2 10 0	0 10 6	1 10 6	0 8 4	8 9 4
South Australia.....	1 17 10	0 12 1	3 15 6	0 12 8	0 14 10	0 15 5	8 8 4
Western Australia ...	4 18 10	0 8 3	1 13 8	0 12 8	1 8 2	0 12 9	9 14 4
Tasmania.....	2 10 6	0 16 11	1 2 7	0 9 10	0 11 5	0 7 4	5 18 7
New Zealand	2 11 2	1 7 0	1 16 7	0 7 3	0 9 4	0 5 7	6 16 11
Total, Australasia	2 6 6	0 15 7	2 12 0	0 9 8	1 0 9	0 9 10	7 14 4

Revenue from taxation.

The Colonies differ considerably in respect to the proportion of revenue raised by taxation. Thus, in New Zealand, 57·1, and in Tasmania, 56·9 per cent. of the revenue passing through the hands

of the Government is due to this source, while in New South Wales the proportion only reaches 32·8 per cent.; the comparison, however, is only interesting as showing the large territorial revenue which New South Wales is fortunate enough to possess.

Direct and indirect taxation.

The amount of taxation collected during 1891-2 is shown in the following table. The revenue has been divided into direct and indirect, according to the usually accepted classification :—

Colony.	Total.			Per Inhabitant.		
	Direct.	Indirect.	Total.	Direct.	Indirect.	Total.
	£	£	£	£ s. d.	£ s. d.	£ s. d.
New South Wales	349,795	3,099,992	3,449,787	0 5 11	2 12 6	2 18 5
Victoria	620,139	2,552,268	3,172,407	0 10 9	2 4 1	2 14 10
Queensland	190,318	1,245,503	1,435,821	0 9 3	3 0 9	3 10 0
South Australia	176,015	636,854	812,869	0 10 10	1 19 1	2 9 11
Western Australia....	11,904	287,819	299,723	0 4 3	5 2 10	5 7 1
Tasmania	84,274	417,867	502,139	0 11 4	2 16 1	3 7 5
New Zealand	808,047	1,701,978	2,510,025	1 5 2	2 13 0	3 18 2
Australasia	2,240,490	9,942,281	12,182,771	0 11 5	2 10 8	3 2 1

Increase in ten years.

It is interesting to compare these figures with the returns of ten years ago, which are given below. Much the same features are displayed by all the Colonies. The shrinkage of other revenue, and the failure of land sales, have necessitated the adoption of direct taxation, while the Customs Revenue has also increased as compared with the population, not through the increased purchasing power of the people, but by reason of the extension of the number of dutiable articles and increase in the duties levied. The returns for 1881 were :—

Colony.	Total.			Per Inhabitant.		
	Direct.	Indirect.	Total.	Direct.	Indirect.	Total.
	£	£	£	£ s. d.	£ s. d.	£ s. d.
New South Wales	192,503	1,578,345	1,770,848	0 5 0	2 1 3	2 6 3
Victoria	347,782	1,635,345	1,983,127	0 8 1	1 18 0	2 6 1
Queensland	49,311	608,443	657,754	0 4 7	2 16 7	3 1 2
South Australia.....	14,522	569,617	584,139	0 1 1	2 2 7	2 3 8
Western Australia.. .	1,206	114,919	116,125	0 0 10	3 17 10	3 18 8
Tasmania	66,748	283,398	350,146	0 11 5	2 8 6	2 19 11
New Zealand	405,802	1,480,507	1,886,309	0 16 6	3 0 1	3 16 7
Australasia	1,077,874	6,270,574	7,348,448	0 10	2 5 8	2 13 6

Methods of taxation.

Customs, Excise, and Stamp Duties, with License Fees are the ordinary forms of taxation in each Colony; in addition to these, in Victoria a land tax on large estates has been imposed since 1877, a land and dividend tax in Tasmania since 1880, a land and income tax in South Australia since 1884, a dividend tax in Queensland since 1890, while New Zealand, after trying a land and property tax, now levies a graduated land and income tax. The land and property tax, however, was in force during part of the year 1892, as the subjoined table will show. In New South Wales several attempts have been made to introduce land and income taxes, and, quite recently, an income tax was proposed by the Government, but, so far, parliamentary sanction to this system of taxation has not been obtained.

Sources of revenue.

The following is a statement of the amount derived from various sources of direct taxation in each of the Colonies during 1891–2 :—

	Stamp Duties.		Total amount of Direct Taxation.
	£		£
New South Wales ...	349,795	.....	349,795
Victoria	493,488	Land Tax, £126,651.....	620,139
Queensland	127,483	Dividend Tax, £62,835	190,318
South Australia	61,509	Land Tax, £65,443, Income Tax, £49,063	176,015
Western Australia ...	11,904	....	11,904
Tasmania	30,407	Land Tax, £43,296, Dividend Tax, £10,569	84,272
New Zealand.....	426,373	Property Tax, £17,126; Land Tax, £297,181; Income Tax, £67,367	808,047

Revenue not proportionate to tariffs.

The Colony with the highest revenue from import duties as compared with population is Western Australia, South Australia being at the other end of the scale. A false impression is apt to be gathered from a bare statement of the amounts per head, as it may be assumed that the provinces obtaining the least revenue are the most lightly taxed, while those with large revenues are heavily burthened. The truth is often the reverse of this. Where the taxation is obtained through the custom house, a low consumption of taxable goods under a high tariff—such as is the case in

South Australia—may give a revenue per inhabitant not greater than a high consumption under a lower tariff, as is the case of New South Wales. A reference to the table on page 327 will show the correctness of this.

Taxation compared with total revenue.

Australasia raises in proportion to its total income a less sum by taxation than most countries concerning which information is available, as the following table shows. The figures, however, prove very little, because in most of these countries taxation is the chief source of revenue, while in the Colonies a large share of the income is obtained from railways and telegraphs, which, in older countries, are generally in the hands of private companies.

A return is given below showing the percentage of direct and indirect Taxation to total revenue exclusive of the receipts from Railways and Electric Telegraphs. The returns are either for 1890 or 1891 :—

Country.	Total Revenue less Receipts from Railways and Electric Telegraphs	Taxation.	Percentage of Revenue derived from Taxation to total in first column.
	£	£	
United Kingdom	88,514,786	75,340,000	85·1
Russia	88,387,100	62,516,900	70·7
Italy	65,754,409	51,042,127	77·6
United States	81,794,000	76,085,000	93·0
Canada	7,371,706	6,315,448	85·7
Cape Colony	2,301,497	1,654,583	71·9
Australasia	19,431,600	12,182,771	62·7

Revenue from sale of land.

The practice of treating money derived from the sale and occupation of Crown lands as revenue obtains in all the Colonies, and the money so raised forms one of the largest items of their annual income. The propriety of so doing is open to grave doubt, but the argument used in its justification is that the sums so obtained have enabled the Government to construct public works which both enhance the value of the remaining public lands and facilitate settlement, or to endow municipalities, and thus enable them to carry out local works. The revenue from land sales is

declining year by year, both absolutely and when compared with population. In New South Wales and South Australia the falling off has been most noticeable; in the former the revenue from this source is now some £150,000 less than was the case ten years ago, while in South Australia the revenue from land sales has almost disappeared.

Sinking fund.

In only three of the Colonies is a general sinking fund established to assist in the redemption of public loans on maturity. The desirability of such a fund is on all sides admitted, and a portion of the proceeds of lands sales could, with advantage, be set apart from the general revenue and devoted to this purpose.

Adopting the division of land revenue into receipts from sales, and receipts from occupation, the following table shows the income for 1881 :—

Colony.	Total.			Per Inhabitant.		
	Revenue received.		Total.	Revenue received.		Total.
	From Auction and other classes of sales.	Occupation, &c., of Crown lands.		From Auction and other classes of sales.	Occupation, &c., of Crown lands.	
	£	£	£	£ s. d.	£ s. d.	£ s. d.
New South Wales	2,483,338	337,651	2,820,989	3 4 11	0 8 10	3 13 9
Victoria	701,276	135,194	836,470	0 16 4	0 3 2	0 19 6
Queensland	435,664	186,893	622,557	2 0 6	0 17 5	2 17 11
South Australia ...	651,914	97,042	748,956	2 8 9	0 7 3	2 16 0
Western Australia	5,750	34,695	40,445	0 3 11	1 3 6	1 7 5
Tasmania.....	37,269	39,487	76,756	0 6 5	0 6 9	0 13 2
New Zealand	376,461	174,479	550,940	0 15 4	0 7 1	1 2 5
Australasia ...	4,691,672	1,005,441	5,697,113	1 14 2	0 7 4	2 1 6

Decline in land revenue.

Compared with 1881, the land revenue for 1892 shows a large decline, in all amounting to £1,630,708 ; the falling off is found entirely in the amount of revenue from sales ; that derived from rents has largely increased. However, general remarks applicable to all the Colonies can scarcely be made. New South Wales

obtained £2,483,338 for land sales in 1881, out of a total of £4,691,672 for all the Colonies, or more than one half, while from occupation its revenue was £337,651 out of £1,005,441, or little more than one-third; in 1892 the revenue of that Colony from sales amounted to £1,195,389, still a large amount, but £1,287,949 short of the receipts of 1881. In regard to occupation, a different condition of things is disclosed—the receipts in New South Wales during 1892 rose to £1,018,673, or by £681,000 as compared with 1881, and amounting to more than half the aggregate for Australasia. The following are the figures for 1892 for all the Colonies :— Revenue of 1881 and 1892 compared.

Colony.	Total.			Per Inhabitant.								
	Revenue received.		Total.	Revenue received.						Total.		
	From Auction and other classes of sales.	Occupation, &c., of Crown lands.		From Auction and other classes of sales.			Occupation, &c., of Crown lands.					
	£	£	£	£	s.	d.	£	s.	d.	£	s.	d.
New South Wales	1,195,389	1,018,673	2,214,062	1	0	3	0	17	3	1	17	6
Victoria	392,544	126,835	519,379	0	6	10	0	2	2	0	9	0
Queensland	261,265	365,200	626,465	0	12	8	0	17	10	1	10	6
South Australia ...	59,923	182,040	241,963	0	3	8	0	11	2	0	14	10
Western Australia	20,048	58,580	78,628	0	7	2	1	1	0	1	8	2
Tasmania.....	42,043	43,190	85,233	0	5	8	0	5	9	0	11	5
New Zealand	110,355	190,320	300,675	0	3	5	0	5	11	0	9	4
Australasia ...	2,081,567	1,984,838	4,066,405	0	10	7	0	10	2	1	0	9

PUBLIC EXPENDITURE.

The amount disbursed by the Government of New South Wales is far larger than that of any other Colony of the group; it exceeds that of Victoria by from one to two millions, and is equal to the united expenditure of New Zealand, Queensland, and South Australia. Large expenditure of New South Wales.

Total expenditure.

The total expenditure during 1891–2 for each Colony, distributed under various heads, was :—

Colony.	Railways.	Post and Telegraphs.	Public Instruction	Interest and charges on Public Debt.	All other Services.	Total Expenditure.
	£	£	£	£	£	£
New South Wales..	2,150,220	759,017	847,790	1,979,327	4,800,466	10,536,820
Victoria	2,131,787	628,382	776,303	1,705,139	3,241,306	8,482,917
Queensland	633,502	329,055	252,639	1,167,061	1,243,024	3,625,281
South Australia ..	676,732	196,995	140,779	902,616	820,011	2,737,133
Western Australia.	92,600	49,975	15,397	98,211	294,433	550,616
Tasmania	147,896	78,480	43,577	263,853	317,753	851,559
New Zealand	729,276	277,224	377,941	1,821,129	1,150,377	4,355,947
Australasia..	6,562,013	2,319,128	2,454,426	7,937,336	11,867,370	31,140,273

Details of expenditure.

It will be seen from the foregoing statement that 21·1 per cent. of the whole expenditure is for working the railways of the Colonies, a service not usually undertaken by the State. Post and Telegraphs absorb 7·4 per cent., Public Instruction 7·9 per cent., and the interest on the Public Debt 25·5 per cent.

Expenditure per inhabitant.

Adopting the classification of expenditure used in the preceding table, the amount per inhabitant of each province is given below. It may be here mentioned that in New South Wales the street tramways are the property of the State, and are under the same management as the railways, and are included therewith in the various statements in this chapter relating to revenue and expenditure :—

Colony.	Railways.	Post and Telegraphs	Public Instruction.	Interest and charges on Public Debt.	All other Services.	Total Expenditure.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
New South Wales..	1 16 5	0 12 10	0 14 4	1 13 6	4 1 4	8 18 5
Victoria.....	1 16 10	0 10 10	0 13 5	1 9 5	2 16 0	7 6 6
Queensland	1 10 10	0 16 0	0 12 4	2 16 11	3 0 7	8 16 8
South Australia....	2 1 6	0 12 1	0 8 8	2 15 5	2 10 4	8 8 0
Western Australia	1 13 1	0 17 10	0 5 6	1 15 1	5 5 2	9 16 8
Tasmania	0 19 10	0 10 6	0 5 10	1 15 6	2 2 8	5 14 4
New Zealand	1 2 8	0 8 8	0 11 9	2 16 9	1 15 10	6 15 8
Australasia ..	1 13 6	0 11 10	0 12 6	2 0 6	3 0 6	7 18 10

Interest on Public Debt.

The most remarkable feature in the general expenditure is the largeness of the amount required to pay interest on the public debt, both in regard to the rate per head and the proportion of total revenue thus hypothecated. The proportion for Australasia is slightly more than one-fourth of the total expenditure, and £2 0s. 6d. per head of population, while the actual expenditure for each Colony, during 1891–92 was :—

Colony.	Interest and Charges on Public Debt.		
	Total.	Per Inhabitant.	Percentage to Total Expenditure.
	£	£ s. d.	
New South Wales	1,979,327	1 13 6	18·8
Victoria	1,705,139	1 9 5	20·1
Queensland	1,167,061	2 16 11	32·2
South Australia	902,616	2 15 5	33·0
Western Australia	98,211	1 15 1	17·8
Tasmania	263,853	1 15 6	31·0
New Zealand	1,821,129	2 16 9	41·8
Australasia	7,937,336	2 0 6	25·5

Mortgaging the resources.

A casual glance at the figures quoted will lend colour to the suggestion sometimes hazarded that the Colonies are too rapidly mortgaging their resources, and that the expense of the public debt will prove a greater burthen than can easily be borne. However true this may be as far as any individual Colony is concerned, it is certainly erroneous as regards the whole of Australasia. Out of the sum £7,937,336, required to pay interest and charges on Public Debt during 1891–2, £3,644,500 was directly recouped by the profit on public railways, while water supply, sewerage, and other productive services yielded a further sum of £513,000, making total of £4,157,500. Besides this, there is a large indirect revenue obtained by each Colony from the opening up of its public lands, and from the construction of breakwaters, lighthouses, bridges, and other works of public utility. But even these advantages might be bought at too dear a price if production had not correspondingly advanced. Fortunately such has been the case, as will be seen from the chapters in this volume which deal with the leading items of Australasian production.

Form of accounts misleading.

The form in which the Public Accounts of all the Colonies are presented has led to a great deal of misconception regarding the actual requirements of the various Governments for public purposes. Nor has it been possible to do other than adopt that form in the foregoing pages, as otherwise the figures quoted would differ from the various Treasury statements, and add another element of confusion; nevertheless, it would be well before closing the remarks on Public Finance to make a separation of the items of revenue and expenditure according to the principles which should govern the presentation of the Public Accounts.

South Australia's surplus from services.

Only one Colony—South Australia—is fortunate enough to have a surplus revenue from services after all charges and interest have been defrayed. Several of the other Colonies have a surplus on some of their services, although, on the whole, the receipts exceed the cost of working the services. Treating the services generally as a matter apart from the Public Accounts, and on the one hand taking into consideration as revenue only the surplus (where such exists) after working expenses and interest charges have been allowed for, and on the other hand counting as expenditure only the deficiency of the revenue from the working expenses and interest, the results shown in the following tables are obtained. The services separately dealt with are Railways, Tramways, Telegraphs and Telephones, Water Supply and Sewerage. The Post Office has not been included, inasmuch as it is a matter of governmental administration in all countries. First as regards revenue :—

True adjusted revenue.

Colony.	Revenue from all sources except excluded Services.	Revenue (if any) from Services after deducting cost of Working and Interest.	Total.	
			Revenue as adjusted.	Per Inhabitant.
	£	£	£	£ s. d.
New South Wales...	6,646,662	Nil.	6,646,662	5 12 6
Victoria	4,482,603	Nil.	4,482,603	3 17 6
Queensland.....	2,360,073	Nil.	2,360,073	5 15 0
South Australia.....	1,268,064	82,253	1,350,317	4 3 0
Western Australia...	433,563	Nil.	433,563	7 19 0
Tasmania	688,297	Nil.	688,297	4 12 5
New Zealand	3,080,714	Nil.	3,080,714	4 15 11
Australasia...	18,959,976	82,253	19,042,229	4 17 1

Loss on services.

As already explained, South Australia is the only Colony which can show an actual profit on the services which it carries out; all the other Colonies fail to achieve this desirable result. In the following table the adjusted expenditure is given. From the first column of expenditure the expenses of services have been excluded; in the second the actual cost of such to the State is inserted, after allowing for revenue received and for interest. No sum appears against South Australia, for the reason already explained:—

Colony.	Expenditure except for excluded Services.	Net cost of Services to the State, allowing for Revenue received against Working Expenses and Interest.	Total.	
			Expenditure as adjusted.	Per Inhabitant.
	£	£	£	£ s. d.
New South Wales	6,336,962	345,416	6,682,378	5 13 3
Victoria	4,788,104	390,495	5,178,599	4 9 6
Queensland	2,213,456	298,182	2,511,638	6 2 6
South Australia	1,345,827	Nil.	1,345,827	4 2 9
Western Australia	393,866	46,474	440,340	7 17 6
Tasmania	537,674	118,983	656,657	4 8 2
New Zealand	2,882,117	157,231	3,039,348	4 14 8
Australasia	18,498,006	1,356,781	19,854,787	5 1 3

Actual cost of Government.

The figures just given show that the actual cost of government is materially less in all the Colonies than would appear from the ordinary statement of revenue and expenditure. The difference is largest in the case of the Colonies of New South Wales and Victoria, in which the various services show the most development; and least in Western Australia, where the opposite condition obtains.

PUBLIC DEBT.

The practice of raising money for State purposes by means of public loans was begun in 1842, when New South Wales issued debentures redeemable in two years and bearing interest at the

First loans raised.

rate of 8 per cent. per annum. The sum raised—£45,900—was devoted to immigration purposes. This, as well as the succeeding loans, nine in number, raised prior to 1855, was obtained locally; in the year named however, this Colony placed on the London market the first instalment of a 5 per cent. loan for £683,300, which was the first external loan raised, and may be rightly said to mark the commencement of the present Australasian indebtedness.

Indebtedness before responsible Government.

So far as most of the Colonies are concerned, their Public Debts date from about the time of their assuming the control of their own affairs. Western Australia, however, which obtained responsible government in 1890, incurred liabilities in London as far back as 1872, but in the case of that Colony the granting of parliamentary government was unduly delayed. The following table is interesting as showing the liabilities of each of the Colonies at the date of its taking charge of its own affairs :—

Colony.	Date of Obtaining Responsible Government.	Amount of Debt Liability at that date.
New South Wales	1855	1,366,770
Victoria	1855	480,000
Queensland	1859	.....
South Australia	1856	294,900
Western Australia	1890	1,367,444
Tasmania	1855	.....
New Zealand	1856	.....

Growth of indebtedness.

No feature of Australasian finance is so astonishing as the growth of the public indebtedness, and this fact forms the gravamen of the indictments which have been urged against the Colonies during the past few years, especially since the great London failure of the house of Baring Brothers. The debts have undoubtedly grown at a much more rapid pace than the population, but as the Colonies were in an entirely undeveloped state when public borrowing first came into favour, the more rapid growth of their

indebtedness as compared with the population was in a sense the corollary of the position taken up by the Governments that the State should reserve to itself the construction of railways and similar undertakings, which in other countries are prosecuted by private enterprise. Even with this explanation, the figures in the following statement are sufficiently striking:— Increase of debt since 1861.

Colony.	1861.	1871.	1881.	1892.
	£	£	£	£
New South Wales ...	4,017,630	10,614,330	16,924,019	54,209,933
Victoria	6,345,060	11,994,800	22,426,502	46,681,287
Queensland..	70,000	4,047,850	13,245,150	30,157,134
South Australia.....	866,500	2,167,700	11,196,800	22,079,925
Western Australia..	....	.....	511,000	2,261,864
Tasmania	..... .	1,315,200	2,003,000	7,399,000
New Zealand	600,761	8,900,991	29,659,111	39,257,840
Australasia.....	11,899,951	39,040,871	95,965,582	202,046,983

The increase between the periods has been, in round numbers, from 1861 to 1871, 27 millions; from 1871 to 1881, 57 millions, and from 1881 to 1892, 106 millions.

The figures just given would be incomplete without corresponding information of the debt per head for the same period. In 1861 the debt stood at £9 10s. 5d.; in 1871, £19 16s. 4d.; in 1881, £34 0s. 2d., while in 1892 it was £50 14s. 2d. For each Colony the figures stand as follow:— Indebtedness per Inhabitant

Colony.	1861.	1871.	1881.	1892.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
New South Wales.....	11 4 5	20 10 0	21 14 8	45 5 9
Victoria	11 14 3	16 0 11	25 9 7	39 19 10
Queensland.....	2 0 9	32 6 11	58 7 2	71 11 8
South Australia.....	6 16 8	11 13 7	39 2 1	65 11 6
Western Australia	.....	.....	17 0 6	38 11 0
Tasmania	.....	12 18 5	16 16 10	48 6 3
New Zealand	6 1 4	33 6 9	59 4 2	60 7 2
Australasia..	9 10 5	19 16 4	34 0 2	50 14 2

These figures present the amount of the public indebtedness as represented by outstanding debentures or stock, but the real amount is less in the case of Western Australia, New Zealand, and Tasmania, which have established sinking funds. To this matter reference will be made later on.

Varieties of Stock.

Of the £202,046,983 which constituted the debt of Australasia in 1892, £192,968,244 was funded debt raised either as debentures, funded, or inscribed stock, and £9,078,739 unfunded or floating debt. The particulars for each Colony were, on the 31st December, 1892:—

Colony.	Debenture Bonds.	Inscribed Stock.	Treasury Bills.	Total.
	£	£	£	£
New South Wales	13,476,549	35,680,500	5,052,884	54,209,933
Victoria	22,530,800	23,150,487	1,000,000	46,681,287
Queensland	11,325,500	18,131,634	700,000	30,157,134
South Australia	11,663,100	9,567,600	849,225	22,079,925
Western Australia	451,000	1,810,864	.....	2,261,864
Tasmania	3,815,870	2,106,500	1,476,630	7,399,000
New Zealand	4,608,157	34,649,683	.....	39,257,840
Australasia	67,870,976	125,097,268	9,078,739	202,046,983

Sinking Funds.

As before mentioned, three of the Colonies have sinking funds, which should be reckoned as decreasing the indebtedness shown in the foregoing statement. The amounts of the sinking funds are as follows:—New Zealand, £1,035,449; Western Australia, £99,325; and Tasmania, £145,004.

Rate of interest to be considered.

The relative burthen of the public debt for each Colony is not to be determined by comparing the gross amount with the population, unless the rate of interest payable is also taken into consideration. Thus the general average interest payable by New

South Wales is 3·89 per cent., while New Zealand pays 4·05 per cent., so that a debt of £100 in the former is not more burthensome than £94 in the latter Colony. A more exact basis of comparison is obtained by taking the interest payable. This is shown in the following table. It will be understood that the interest shown is on the supposition that the debt is outstanding for the whole of the year following the day on which the amounts are made up. The whole debt, funded and unfunded, has been included :— Comparison of Colonies.

Colony.	Average rate of Interest.			Interest.	
	Funded Debt.	Unfunded Debt.	Total.	Amount on Outstanding Liabilities on 31st December, 1892.	Per Inhabitant.
	Per cent.	Per cent.	Per cent.	£	£ s. d.
New South Wales...	3·80	4·03	3·82	2,072,861	1 14 8
Victoria	3·98	4·50	3·99	1,862,990	1 11 6
Queensland	3·93	4·00	3·93	1,185,061	2 16 3
South Australia ...	4·07	4·50	4·08	901,517	2 13 7
Western Australia..	4·09	.....	4·09	92,582	1 11 7
Tasmania	4·07	4·67	4·19	309,895	2 0 6
New Zealand	4·05	.....	4·05	1,588,732	2 8 10
Australasia	3·95	4·23	3·96	8,013,638	2 0 3

In 1884 the nominal rate of interest on New South Wales loans was fixed at 3½ per cent., at which rate stock to the amount of £28,494,200 has been sold to January, 1892. It was not till 1888 that this example was followed by any of the other Colonies, when Queensland successfully floated the loan of £2,520, 00 at the reduced rate, and in 1889 Victoria, South Australia, Tasmania, Reduction of nominal Interest.

Nominal interest 3½ per cent.

and New Zealand, in the order named, were successful in issuing stock at a similar nominal rate. Western Australia is now the only Colony floating loans other than Treasury Bills, at 4 per cent. The following shows the amount and proportion to the total debt under each rate of interest for each of the group :—

Rate of Interest.	New South Wales.	Victoria.	Queensland	South Australia.	Western Australia.	Tasmania.	New Zealand.
			FUNDED DEBT.				
℔ cent.	£	£	£	£	£	£	£
Nil.	1,160	.....	.....	.....	.....	.....	311
7	.....	.....	.....	.....	.....	.....	15,000
6¼	.....	.....	.....	.....	.....	.....	35,000
6	92,000	.....	765,600	1,116,200	33,000	684,100	233,700
5	4,326,600	2,573,800	.....	300,000	87,400	55,100	1,798,700
4¾	.....	.....	.....	.....	.....	41,750	.....
4½	.....	5,000,000	.....	.....	114,900	.....	2,386,439
4	16,243,089	26,107,487	21,384,300	17,564,400	2,026,564	3,034,220	31,305,802
3½	28,494,200	12,000,000	7,307,234	2,250,100	.....	2,107,200	3,482,888
Total	49,157,049	45,681,287	29,457,134	21,230,700	2,261,864	5,922,370	39,257,840
			UNFUNDED DEBT—Treasury Bills.				
5	.....	.....	.....	.....	.....	393,500	.....
4¾	.....	.....	.....	.....	.....	472,300	.....
4½	.....	1,000,000	.....	849,225	.....	367,900	.....
4¼	750,000	.....	.....	.....	.....	242,930	.....
4	4,302,884	.....	700,000	.....	.....	.....	.....
Total	5,052,884	1,000,000	700,000	849,225	.....	1,476,630	.....
Grand Total	54,209,933	46,681,287	30,157,134	22,079,925	2,261,864	7,399,000	39,257,840

Loans redeemable at fixed dates.

Australasian loans have, with few exceptions, been issued for fixed periods, the only interminable loans being the New South Wales issues of 1855-7 of £2,700, and 1873-6 of £530,189. The date fixed for the redemption of the loans is therefore a matter of very great importance, and a study of the figures found below will show with what small judgment the periods of redemption have been arranged, and how necessary it is that local Treasurers should consider the circumstances not only of their own Colony but those of their neighbours, in determining the currency of a proposed loan. The following figures show the amount of Australasian loans coming due in the various years. It will be understood that where there is an option of various dates for

redemption the last has been assumed as being the date when the loan will fall due :— Dates of Redemption.

FUNDED DEBT.

	£		£
Overdue	1,471	1915 ...	12,828,600
1893 ...	758,700	1916 ...	1,423,500
1894 ...	2,721,550	1917 ...	1,363,800
1895 ...	1,786,793	1918 ...	13,463,100
1896 ...	2,128,600	1919 ...	4,026,000
1897 ...	554,900	1920 ...	6,314,550
1898 ...	1,520,900	1923 ...	7,000,000
1899 ...	2,875,146	1924 ...	31,125,134
1900 ...	951,320	1926 ...	5,000,000
1901 ...	3,602,200	1929 ...	29,350,302
1902 ...	589,200	1930 ...	2,522,400
1903 ...	2,018,000	1931 ...	900,000
1904 ...	5,599,900	1933 ...	7,186,300
1905 ...	191,800	1934 ...	910,864
1906 ...	1,262,400	1935 ...	1,560,400
1907 ...	5,538,500	1936 ...	2,182,400
1908 ...	8,298,000	1939 ...	2,250,100
1909 ...	1,884,500	1940 ...	5,589,388
1910 ...	2,953,000	Interminable ...	532,889
1911 ...	1,076,600	Annual Drawings	1,782,600
1912 ..	353,000	Dates undefined...	1,150,487
1913 ...	6,560,650		
1914 ...	1,278,300	Total ...	£192,968,244

UNFUNDED DEBT.

(*Treasury Bills.*)

1893 ...	1,590,740	1898 ...	3,230
1894 ...	2,022,660	Annual payments	2,052,884
1895 ...	40,000		
1896 ...	2,490,000	Total ...	£9,078,739
1897 ...	879,225		
		Total Debt... ...	£202,046,983

The amount of debt repayable in each year from 1893 onward is given for each of the seven colonies in the following statement. For New South Wales the most serious years are happily still far removed; £11,994,000 fall due in 1918, £16,500,000 in 1924, and £7,186,300 in 1933. The Victorian redemptions are more evenly distributed; the largest in any one year is £7,000,000 in 1923; Queensland will be called to redeem £11,728,800 in 1915, and £12,973,834 in 1924; South Australia has something to redeem in almost every year, the largest amount at any one time is £4,548,000 in 1908. The redemptions for New Zealand are light till 1929, when £29,150,302 fall due. The list of redemptions, Large Redemptions in some years.

Due dates of Loans.

though lengthy, is marked by so many interesting features that it is printed in full detail :—

Year.	New South Wales.	Victoria.	Queens-land.	South Australia.	Western Austr'lia.	Tasm'nia	New Zealand.
			FUNDED DEBT.				
	£	£	£	£	£	£	£
Overdue	1,160	.....	.....	.....	....	....	311
1893	40,000	.....	.....	158,700	....	131,500	428,500
1894	.....	2,419,900	.....	68,100	....	168,250	65,300
1895	832,000	122,000	.....	60,000	....	105,900	666,893
1896	977,400	.....	765,600	60,000	....	100,000	225,600
1897	65,800	31,900	.....	60,000	....	100,000	297,200
1898	177,200	.....	.....	140,000	....	56,700	1,147,000
1899	197,700	1,500,000	.....	1,140,000	....	....	37,446
1900	857,100	.....	.....	63,000	....	31,220	....
1901	404,900	3,000,000	.....	64,300	33,000	100,000	....
1902	459,000	.....	.....	65,000	34,000	31,200	....
1903	1,901,500	.....	.....	70,000	31,500	15,000	....
1904	58,000	5,457,000	.....	67,500	....	17,400	....
1905	2,300	.....	.....	42,500	21,900	10,500	114,600
1906	224,900	.....	.....	1,037,500	....	....	....
1907	.....	4,000,000	.....	538,500	....	....	1,000,000
1908	1,450,000	2,000,000	.....	4,548,000	....	300,000	....
1909	1,799,500	.....	.....	45,000	....	....	40,000
1910	2,863,700	.....	.....	64,300	....	....	25,000
1911	.....	.....	.....	76,600	....	1,000,000	....
1912	287,000	.....	.....	66,000	....	....	....
1913	.....	4,000,000	1,466,500	41,000	....	546,650	506,500
1914	.....	.....	.....	32,500	....	800,000	445,800
1915	.....	.....	11,728,800	595,000	....	....	504,800
1916	.....	.....	.....	1,411,300	....	....	12,200
1917	.....	.....	.....	1,363,800	....	....	....
1918	11,994,200	.....	.....	1,468,900	....	....	....
1919	.....	4,000,000	.....	26,000	....	....	....
1920	.....	6,000,000	.....	13,000	....	301,550	....
1923	.....	7,000,000	.....	.....	....	....	....
1924	16,500,000	.....	12,973,834	1,651,300	....	....	....
1926	.....	5,000,000	.....	.....	....	....	....
1929	.....	.....	.....	200,000	....	....	29,150,302
1930	.....	.....	2,522,400	.....	....	....	....
1931	.....	.....	.....	.....	900,000	....	....
1933	7,186,300	.....	.....	.....	....	....	....
1934	.....	.....	.....	.....	910,864	....	....
1935	.....	.....	.....	1,560,400	....	....	....
1936	.....	.....	.....	2,182,400	....	....	....
1939	.....	.....	.....	2,250,100	....	....	....
1940	.....	.....	.....	.....	....	2,106,500	3,482,888
Interminable	532,889	.....	.....	.....	....	....	....
Annual Drawings.	344,500	.....	.....	.....	330,600	....	1,107,500
Dates undefined..	.....	1,150,487	.....	.....	....	....	....
Total.....	49,157,049	45,681,287	29,457,134	21,230,700	2,261,864	5,922,370	39,257,840
			UNFUNDED DEBT. *(Treasury Bills.)*				
1893	.....	1,000,000	.....	.....	....	590,740	....
1894	1,250,000	.....	.....	.....	....	772,660	....
1895	.....	.....	.....	.....	....	40,000	....
1896	1,750,000	.....	700,000	.....	....	40,000	....
1897	.....	.....	.....	849,225	....	30,000	....
1898	.....	.....	.....	.....	....	3,230	....
Annual payments	2,052,884	.....	.....	.....	....	....	....
Total.....	5,052,884	1,000,000	700,000	849,225	....	1,476,630	....
Total Debt	54,209,933	46,681,287	30,157,134	22,079,925	2,261,864	7,399,000	39,257,84

MUNICIPAL BORROWINGS.

Authority to borrow.

The question of the indebtedness of the local government bodies in municipalities has already been touched upon in this chapter and in another part of this volume.

Under the Local Government Acts of the various Colonies, the municipal authorities are empowered to borrow money to carry out works for the improvement of the districts under their control, and this power has been availed of to a considerable extent. It has also been the practice of the general governments to construct works, such as, for example, those for water supply and sewerage, the cost of which is charged against the municipalities in the books of the Treasury, and repaid with interest in annual instalments. The sums so advanced have been obtained from the proceeds of general loans, and have been included in the statement of public loans already given. The following table distinguishes these two sorts of loans for the four Colonies in regard to which information is available :—

Colony.	Amount of Money advanced from General Loan Account.	Other Loans.	Total Indebtedness.
	£	£	£
New South Wales ...	5,301,109	1,793,775	7,094,884
Victoria	4,003,953	6,773,602	10,777,555
Tasmania	.....	.....	420,000
New Zealand.....	459,000	6,081,934	6,540,934

Municipal Sinking Funds.

The amount to the credit of the sinking funds of local bodies in New South Wales and Victoria was £162,747 and £225,216 respectively. For the other Colonies similar information is not obtainable. In the case of the Tasmanian municipal indebtedness, shown in the above table, the amount due to the outside public cannot be distinguished from that advanced from the general loans account.

FUNDED AND UNFUNDED LOAN ISSUES.

London the market for Loans.

From 1855, when the first New South Wales loan was placed on the London market, until the present time, the Colonies have obtained from the same source nearly the whole of the money which they have borrowed. In only two of the Colonies does the amount of the outstanding loans locally subscribed reach large figures, and even in these instances the local borrowings form but a small fraction of the whole sum for which the Colony stands indebted. Thus, for New South Wales the total local borrowing is only £2,164,149, and for Victoria £1,463,387. These amounts, however, are exclusive of the floating debt in the form of Treasury Bills, which to a large extent have been placed locally. This dependence on the English market was originally due to the lack of local capital; but of late years, when such capital has been fairly abundant, the Governments have still turned to London, where the rate of interest at which they could borrow was very much below what would have been demanded by the local capitalist; and it has only been the closing of the London markets that has driven the Australasian Governments during the last few years to look to local capitalists for the funds required to enable them to complete their engagements, and a conjunction of unlooked for accidents has made it possible for the local loans to be placed at a figure only slightly above the present London rates.

Incidental charges.

The charges incidental to the floating of an inscribed stock loan in England are heavy. The chief expense is the stamp duty of 12s. 6d. per cent. to the British Government on inscribed stock. The other charges are for services rendered. New South Wales, Queensland, and New Zealand issue their stock through the Bank of England, the London and Westminster Bank acts for Victoria, Western Australia, and Tasmania. South Australia issues its loans through its Agent-General resident in London, while with Tasmania also the Agent-General is the channel through whom the loans are placed, but in the case of that Colony its representative has the assistance of the London and Westminster Bank.

Bank of England charges.

The cost of negotiation by the Bank of England is ½ per cent. commission, by the London and Westminster Bank ¼ per cent. The 12s. 6d. per cent. composition duty per £100 inscribed stock has already been referred to. Brokerage costs ¼ per cent., and in addition to these charges there has usually to be added 4d. or 5d. per £100 for incidental expenses. The charges annually made by the Bank of England for the inscription and management of stock and the payment of the half-yearly dividends are £600 per million for the first ten millions, £550 for the next five, and £500 per million for all subsequent amounts; the charges of the London and Westminster Bank are £500 for the first ten millions, £450 for the second like sum, and £400 per million for any subsequent amounts.

Stamp Duties.

Under the old form of debenture the stamp duty imposed was only 2s. 6d. per cent., but in 1892 the duty was increased by 1s. for a "Goschen" stamp, the duty now being equal to £1,750 per one million debentures. The expenditure per £100 debenture and stock for issues of those Colonies for which information was obtainable is given in the subjoined table. The debenture loans shown are some of the last issued by the Colonies. It will be seen that the cost of floating inscribed stock loans is much larger than that under the debenture system, but the extra outlay is considered fully compensated for by the advantages gained in other ways :—

Colony.	Year of Negotiation.	Principal.		Expenses per £100 Debenture and Stock.	Class of Stock.
		Rate of Interest.	Amount.		
			£	£ s. d.	
New South Wales ...	1883	4	2,000,000	0 11 9½	Debentures.
	1889	3½	3,500,000	1 13 1	Inscribed.
	1891	3½	4,500,000	1 8 11	do.
Victoria	1880	4½	2,000,000	0 17 9½	Debentures.
	1891	3½	3,000,000	1 2 9	Inscribed.
	1892	3½	2,000,000	1 3 0	do.
Queensland	1881	4	1,089,500	0 15 9	Debentures.
	1890	3½	2,264,734	1 8 0	Inscribed.
	1891	3½	2,500,000	1 8 2	do.
South Australia	1883	4	1,438,500	0 9 0	Debentures.
	1889	3½	1,317,800	0 19 1	Inscribed.
	1892	3½	932,300	1 1 2	do.
Western Australia.....	1891	4	250,000	1 5 7	Inscribed.
Tasmania	1886	4	1,000,000	0 18 0	Debentures.
	1889	3½	1,000,000	1 4 10	Inscribed.

Inscribed Stock.

The first inscribed stock loan placed by Australasia was in 1879, at which date New Zealand issued a 5 per cent. loan of £5,000,000 at 97½, in the form of debentures, the subscribers having the option up to March, 1881, of exchanging for 4 per cent. inscribed stock at the rate of £120 of stock for each £100 of debentures. The loan was successfully floated, and within the stated period £4,476,000 of the £5,000,000 debentures were exchanged for £5,371,200 inscribed stock at 4 per cent.

Queensland, in 1882, was the next Colony to issue a loan under the new conditions, New South Wales following its example in 1883, Victoria in 1884, and the other Colonies at various intervals since the date last mentioned.

Inscribed Stock popular.

Of the three classes of securities—inscribed stock, registered stock, and debenture bonds—the first mentioned is the most popular. All the Colonies now float their loans as inscribed, and the bulk of the debt of each Colony, except those of South Australia and Tasmania, is under this denomination. By inscription the possibilities of fraud in transfer are minimised, as the stock is inscribed in the books of the stock kept by the inscribing bank, and transferable there personally by the stock-holders or their attorneys in the said books, with no issue of certificates of stock, while with the registered stock the certificates are issued transferable by deed. The debenture coupons are, like an ordinary bank-note, negotiable by bearer.

TREASURY BILLS.

As late as the year 1890 the Colonies could borrow in London on very favourable terms, but in the year named the conditions were no longer favourable. This change had for its immediate cause a condition of things not of the Colonies' own creation, the

Baring failure and the Argentine crisis being primarily responsible for the stoppage of Australasian credit, but there can be no reasonable ground for supposing that if the Baring failure had not taken place, the London markets would have been much longer open to the Australasian Colonies. The Treasurers of the various Colonies were entirely unprepared for this revulsion in credit. They were committed to engagements for the construction of public works which they could not terminate, contracts had been entered into for large sums on the assumption that funds would be available, besides this, no preparation had been made to meet debentures falling due in a short time. This sudden stoppage of credit greatly embarrassed the Colonial Governments, and most of the Colonies have had recourse to Treasury Bills to enable them to adjust their finances to the altered circumstances, with the hope that a year or two's abstention from borrowing would prove favourable to their prospect of placing a long dated loan. Their expectation in this respect does not seem likely to be early realised. The amounts received from the sale of Treasury Bills was devoted to meeting loans maturing and providing funds for public works already contracted for when the markets closed against the Colonies. New South Wales during 1892 placed three issues of 4 per cent. Treasury Bills on the London market, the face value of the issues being £2,513,500. The first instalment was sold at 10s. per cent. discount, the second at 5s. premium, and the third at par; the currency was for two, three, and four years respectively. The issues were negotiated by the London and Westminster Bank, which also in January, 1893, successfully placed two further issues of 4 per cent. Bills, amounting to £736,500. In addition to these, £750,000 at 4¼ per cent. were raised locally at par during 1892, the currency being 4 years. Revulsion of Credit.

Victoria during 1892 issued locally £1,000,000 of 4½ per cent. Bills at a rate slightly above par; they are repayable in 1893. During January and February, 1893, the Government issued also locally 4½ per cent. Treasury Bills to the extent of £750,000 in Local Loans.

three equal parts, the dates of maturity being three, four, and five years, and the average prices realised were £99 1s. 2d., £99 2s. 2½d. and £99 12s. 5½d. respectively ; the general average was equal to £99 5s. 3½d.

Treasury Bills—Queensland.

The Queensland Government had authority from Parliament to issue Treasury Bills to the amount of £1,420,945. £700,000 of these bills had been disposed of by the end of 1892, of which £400,000 were placed locally, and £300,000 in London. They bear a nominal rate of 4 per cent., and are fixed to mature in 1896.

South Australia.

South Australia issued in June, 1892, Bills to the amount of £349,225 with interest at the rate of £4 11s. 3d. per cent. and payable in five years, and in March, 1893, a further issue of £250,000 was made bearing the same rate and currency. In both issues the amounts required were largely over subscribed.

Western Australia.

The Government of Western Australia had authority to issue 4½ per cent. bills during 1893. The first instalment of £20,000 was raised during May of that year.

Tasmania.

Tasmania raised in 1892 £915,890 by Treasury Bills, £360,000 of which was obtained in London at 4½ per cent. repayable in two years ; the remaining sum was raised in the Colony. The rates of the local bills are 4¼, 4½, and 5 per cent. and the currency ranges from two to six years. £200,000 of 4½ per cent. Treasury Bills, bearing a currency of two years, were placed on the London market in June, 1893.

New Zealand.

No Treasury Bills were raised in New Zealand during the year under review, but an advance of £400,000 has been renewed bearing 4½ per cent. interest. The loan liabilities as they matured were met from surplus revenue or sinking fund, or were converted into 3½ and 4 per cent. inscribed stock.

The following are the particulars of the Treasury Bills issued during 1892 by each Colony :—

Colony.	Year of Maturity.	Nominal		Net Proceeds, less charges and accrued Interest.		Interest per £100 sterling.			
		Interest.	Amount of Loan.	Total.	Per cent.	Nominal Interest on net Proceeds.	Gain or loss in interest by redemption at par on maturity.		Actual interest paid by the Government, allowing for redemption at par.
							Gain.	Loss.	
		Per cent.	£	£	£	£ s. d.	s. d.	s. d.	£ s. d.
New South Wales (*b*)	1894	4	1,250,000	1,244,607	99·57	4 0 4	.....	0 4	4 0 8
,, (*b*)	1896	4	1,000,000	998,750	99·87	4 0 1¼	.....	0 1	4 0 2¼
,, (*b*)	1896	4	263,500	264,711	100·46	3 19 8	2 7	.....	3 17 1
,, (*a*)	1896	4¼	750,000	750,000	100·00	4 5 0	.....	.....	4 5 0
Victoria (*a*)	1893	4½	1,000,000	990,701	99·07	4 10 10	.....	0 10	4 11 8
Queensland (*b*)	1896	4	300,000	687,588	98·23	4 1 5¼	.....	1 3½	4 2 8¾
,, (*a*)	1896	4	400,000						
South Australia (*a*)	1897	4/11/3	349,225	349,005	99·94	4 11 3½	.....	0 0½	4 11 4
Tasmania (*a*)†	1894	5	372,460	372,460	100·00	5 0 0	.....	.....	5 0 0
,, (*a*)	1893–7	4¼	183,230	183,230	100·00	4 5 0	.....	.....	4 5 0
,, (*b*)	1894	4½	360,000	359,820	99·98	4 10 0¼	.....	0 0¼	4 10 0½

† In addition to these issues, £200 stock was floated in Hobart at 4½ per cent. (*a*) Placed locally. (*b*) Placed in London.

FUNDED LOANS ISSUED IN 1892–3.

New South Wales Funded Stock.

New South Wales, in November, 1892, had authority to issue £1,000,000 of the £3,000,000 4 per cent. Funded stock at a minimum price of par, £227,000 of which was disposed of by the 31st December of that year. A further issue of £500,000 at par was authorised in April, 1893. Up to 1st June, 1893, £1,224,430 of stock had been disposed of. The cost of the issue is practically nil, except the ¼ per cent. paid for brokerage; but this last is only payable in respect of a portion of the issue, the bulk of the stock being taken direct by the Treasury.

Victorian Loan of 1892.

Victoria issued a £2,000,000 loan in June, 1892; the average price realised was £92 1s. 4d. per cent., and the rate yielded to investors, after allowing for redemption at par on maturity, was £3 18s. 10d.

Western Australia.

Western Australia floated two loans during 1892, amounting to £250,000 and £400,000 respectively, which were the second and third instalments of the £1,336,000 loan, authorised in 1891. The former brought an average price of £99 2s. and the latter £100 3s. 1d., as compared with £100 10s. 10d. obtained in 1891. The rate of interest was 4 per cent.

Queensland Loan of 1893.

Queensland in January, 1893, placed a 3½-per cent. loan of £1,182,400 on the London market; the average price obtained was £88 16s. 4d. The charges were heavier than usual as the loan was underwritten at the rate of 1 per cent.

Tasmania.

Tasmania issued a 3½-per cent. loan of £800,000 in March, 1893, which is part of the £2,100,000 authorised in December, 1892. The loan was only a partial success, £600,000 being taken up and the balance withdrawn.

The particulars of the last funded loan issues made by each Colony since 1889 to the end of 1892, are as follow :—

Colony.	Year of Issue.	Year of Maturity.	Nominal.		Net Proceeds, less charges and accrued Interest.		Interest per £100 sterling.			
			Interest.	Amount of Loan.	Total.	Per cent.	Nominal Interest on net Proceeds.	Gain or loss in interest by redemption at par on maturity.		Actual interest paid by the Government allowing for redemption at par.
								Gain.	Loss.	
			Per cent.	£ £	£	£	£ s. d.	s. d.	s. d.	£ s. d.
New South Wales...	1891	1918	3½	4,500,000	4,182,493	92·94	3 15 3¾	.....	2 1¼	3 17 5
New South Wales...	1892	1912	4	†227,000	226,596	99·82	4 0 1¾	.....	.....	4 0 1¾
Victoria	1892	1921–1926	3½	2,000,000	1,810,666	90·53	3 17 3¾	.....	3 1¼	4 0 5
Queensland	1891	1930	3½	2,500,000	.....	88·01	4 0 0	.....	1 10¾	4 1 10¾
South Australia	1890–91	1939	3½	*932,300	.....*	.....*	.....*	.....*	.....*	.....*
Western Australia...	1892	1911–1931	4	400,000	393,211	98·30	4 1 4½	.....	0 3½	4 1 8
Tasmania	1889	1940	3½	1,000,000	964,311	96·43	3 12 7	.....	0 3	3 12 10

* Part of the £1,532,913 loan, particulars of which will not be available till the whole of the stock is sold. † Funded stock.

By comparing the returns in the foregoing table with those of Treasury Bills, it will be seen that the rates per cent. paid on the latter are much in advance of those on loans floated as part of the fixed debt.

Repayment of Loans.

The repayment of the Victorian and Western Australian Loans are either on or after a fixed date; the Governments under this condition reserve to themselves the option of redeeming at the minimum or maximum dates, or any period between them, on giving the necessary six or twelve months' notice. Canada was the first of the British possessions to introduce this principle, and it is probable that it will be generally adopted by the Colonies.

Conversion.

Much attention has been bestowed on the question of converting the loans of each Colony to a uniform interest basis, and arranging that the stock shall fall due on a uniform date, the Government having the option of either repaying at that date or continuing the loan for a further period, as may seem the more expedient. Several of the Colonies have had under consideration a method of conversion, but it is obvious that the present time is inopportune for any such proposal. It is certain, however, that conversion cannot be long delayed, as the existing arrangement is confusing to investors, and awkward for the Colonies when the market is against reborrowing.

Interest to Investors.

The following statement shows the rates obtained by investors on loans floated by the Colonies during the years 1889, 1890, 1891, and 1892. The computations allow for the repayment of the various loans at par on maturity. The loans are arranged in the order in which they were floated, and it will be seen that the market has been gradually rising against the Colonies during the whole period. The loan yielding least income to investors and consequently the most favourable to the Colony borrowing, was the Victorian loan of January, 1889, which gave the investors £3 5s. 5d. per cent., while the highest was the Western Australian loan of July, 1891, which gave investors £4 0s. 11d. per cent. During the period covered by the table the average

interest has increased 10s. 3d.. per cent., the increase being fairly general :—

Colony.	Date of Negotiation.	Principal		Currency of Loan.	Rate per cent. to Investors, allowing for redemption at par on maturity.
		Rate of Interest.	Amount.		
	1889.	Per cent.	£	years.	£ s. d.
Victoria	January	3½	3,000,000	35	3 5 5
South Australia	January	3½	1,317,800	40	3 10 8
Tasmania	April	3½	1,000,000	30 to 50	3 12 0
New South Wales	July	3½	3,500,000	30	3 7 10
Western Australia	July	4	100,000	45	3 6 7
New Zealand	October	3½	2,700,000	50	3 13 11
	1890.				
Queensland	March	3½	2,264,734	34½	3 13 9
Victoria	April	3½	4,000,000	34	3 9 7
	1891.				
South Australia	February.	3½	*932,300	48	3 12 5
Victoria	April	3½	2,000,000	35	3 13 10
Queensland	May-June.	3½	2,500,000	40	4 0 3
Victoria	July	3½	1,000,000	34½	3 14 0
Western Australia	July	4	250,000	40	4 0 11
New South Wales	Sept.	3½	4,500,000	27	3 16 8
	1892.				
New South Wales	Nov.-Dec.	4	227,000	20	4 0 0
Victoria	June	3½	2,000,000	29 to 34	3 18 10
Western Australia	November.	4	400,000	19 to 39	4 0 2

* Part of the £1,532,913 loan.

Depreciation of colonial securities.

None of the loans floated during 1892 and 1893 were obtained on terms which can be considered altogether satisfactory, clearly indicating that the prestige of colonial securities has for the present departed. Some few years ago New Zealand stock was

held in low estimation, but now, through adopting a policy of abstaining from placing any further issues for a long period, the securities have risen in value.

Selling price of colonial stock.

The selling price of a loan is not perhaps the most exact test which may be applied to ascertain the credit of a country in the London market. There are many causes which may combine to influence adversely the price obtained by tender, and it will be evident that in some of the instances given in the table on page 353 the selling price of loans was influenced by circumstances entirely apart from the credit of the Colonies concerned. A truer gauge of credit will be found in the selling price and interest yielded to investors by representative stock at a given date. The following table shows the interest returned by the stock of different Colonies in February, 1889, a date when colonial securities were in demand, and February, 1893, when the same were anything but popular. Due allowance has been made in the returns for accrued interest, and for repayment of loans at par on maturity. The market quotations were all considered to be "cum-dividend":—

Interest returned to investors.

Country.	1889.	1893.
	£ s. d.	£ s. d.
New South Wales	3 3 1	3 15 10
Victoria	2 19 3	4 3 9
Queensland	3 2 8	3 19 1
South Australia	3 5 6	3 15 8
Tasmania	3 7 9	3 16 3
New Zealand	3 16 11	3 10 2
Canada	3 0 1	3 4 6
Cape Colony	3 4 9	3 4 6
Natal	3 8 2	3 5 11
India	3 1 6	3 0 6

It will be seen that in 1889 Victoria, Queensland, and New South Wales held a very high position amongst the Colonies who sought aid from the British investor; their stocks were selling at superior prices to those of any of the countries named, India and Canada alone excepted. Since 1889 things have vastly changed, and in February, 1893, the stock of the Colonies named held a position below even the most heavily burthened of the other Australasian Colonies. The resources of a country and its ability to meet its engagements may be implicitly relied on by investors, but it is evident there are other considerations affecting the sale of stock to which the intrinsic goodness of the investment must at times give way. This is a lesson which Australasian Treasurers have now by experience been compelled to learn.

Depreciation in values.

The Imperial guarantee for the Indian and some of the Canadian Dominion loans is certainly to the advantage of those dependencies, as, in addition to the security afforded, the guarantee carries with it the right of trustees to invest trust funds in this class of stock, a privilege not yet extended to Australasian securities.

Imperial guarantee.

EXPENDITURE OF PROCEEDS OF LOANS.

The services upon which the proceeds of the public loans were expended are various, but the bulk of the expenditure may be placed to the account of the construction of railways, water supply, sewerage, and electric telegraphs. In the early stages of Australasian borrowing the expenditure was moderate, loans were hard to raise, and interest high; but latterly, as the conditions under which loans could be contracted became favourable, especially since 1881, few of the Colonies set any bounds to their requirements. It was a repetition of the old experience, the opportunity engendered the desire, and the open purses of the investors tempted the Colonies to undue borrowing and lavish expenditure. What is termed a "vigorous public works policy"

Expenditure mostly on services.

was the order of the day, and works were pressed forward which under other circumstances would not have been undertaken, or have been held back until the growth of population warranted their construction. The plethora of money has been harmful in many ways, but is most apparent in the construction of not a few branch railways in outlying and sparsely-settled districts, which do not pay even their working expenses, with the consequence that the interest on loan capital has to be met out of general revenue, and in some instances the present generation will pass away before this condition of affairs will be remedied. But when every allowance has been made for unwise or improvident expenditure, it will be found that by far the larger portion of the proceeds of loans has been well expended. In some instances, as the subsequent pages show, it will be years, taking a most hopeful view of the situation, before many of the revenue-producing works will yield a sum sufficient to pay working expenses and interest; nevertheless, a practical consideration of the conditions which surround Australasian settlement will demonstrate that in some instances the construction of these works was justifiable, for apart from the consideration that they will be ultimately self-supporting, they have already materially assisted in developing the country's resources, and have largely enhanced the value of the public estate.

Improvident expenditure.

Expenditure from loan funds

The expenditure of Australasia during 1892 from funds derived from the proceeds of loans was £6,963,409. Of this amount £5,284,400 was spent on services directly revenue-producing, and the remainder was chiefly devoted to the construction of works of a substantial nature, such as roads and bridges, improvements to harbours and rivers, lighthouses, schools, and public buildings. The amount expended on fortifications and military works was relatively small. Besides these sums, there was an apparent expenditure of £7,175,123 for redemption of loans, but this last item in no way affects the amount of the public debt, and no further reference need be made to it.

The following statement gives, under a convenient classification, the loan expenditure of each Colony during 1892:— Loan expenditure classified.

Colony.	Amount spent on Works yielding direct Revenue.				Other Works and Services.	Total.
	Railways.	Water Supply and Sewerage.	Electric Telegraphs.	Total.		
	£	£	£	£	£	£
New South Wales ..	1,834,927	553,045	25,837	2,413,809	600,871	3,014,680
Victoria	620,707	367,793	.....	988,500	80	988,580
Queensland	682,486	16,284	8,441	707,211	328,312	1,035,523
South Australia ..	314,168	92,236	11,924	418,328	129,054	547,382
Western Australia..	231,413	.....	11,674	243,087	99,545	342,632
Tasmania	254,321	.....	5,194	259,515	302,145	561,660
New Zealand.....	220,894	3,811	29,245	253,950	219,002	472,952
Australasia	4,158,916	1,033,169	92,315	5,284,400	1,679,009	6,963,409

The returns of New South Wales and Western Australia are for the year ending 31st December, 1892; those of Victoria, Queensland, and South Australia are up to June of that year. The New Zealand figures are for the year ended 31st March, 1893. The Tasmanian returns refer to 1891, no later figures having been published by the Treasurer of that Colony at the time this work was issued—July, 1893. The loan expenditure per inhabitant for the same period is given on page 361. Date of returns.

The total expenditure from loans up to the end of the financial year 1892, exclusive of the amounts paid in redemption of loans, was £192,173,095. Of this sum £144,066,627, or nearly three-fourths, was spent in the construction of Railways, Water Supply, Sewerage, and Electric Telegraphs; the balance was expended on works and services which, though classed as non-productive, for the most part assisted in the national development. The expenditure on defence, and the payments made to meet deficiency Analysis of expenditure.

of revenue are the exceptions to the rule which has governed the expenditure of the proceeds of loan issues; the expenditure to cover deficiency in revenue has not been large, and is looked upon as but a temporary charge on the loan funds, while the expenditure on defence has been extremely small in all the Colonies except New Zealand. The following table shows the total loan expenditure for each Colony up to the respective dates mentioned for the previous table :—

Loan expenditure of each Colony.

Colony.	Amount spent on works yielding direct Revenue.				Other Works and Services.	Total.
	Railways.	Water Supply and Sewerage.	Electric Telegraphs.	Total.		
	£	£	£	£	£	£
New South Wales..	37,417,319	6,119,840	801,301	44,338,460	7,836,260	52,174,720
Victoria	34,206,153	7,547,909	.....	41,754,062	2,693,240	44,447,302
Queensland	17,805,512	1,720,859	830,000	20,356,371	6,741,166	27,097,537
South Australia ..	11,998,831	2,965,096	858,651	15,822,578	4,829,604	20,652,182
Western Australia..	1,107,136	8,697	250,010	1,365,843	411,538	1,777,381
Tasmania	3,508,730	.....	106,744	3,615,474	3,136,877	6,752,351
New Zealand	15,583,004	567,169	663,666	16,813,839	22,457,783	39,271,622
Australasia.....	121,626,685	18,929,570	3,510,372	144,066,627	48,106,468	192,173,095

New Zealand Provincial debts.

In the New Zealand returns old provincial debts contracted prior to 1876, amounting to £11,535,469, have been included under the head "Other Works and Services," as there is no available record of the services upon which the loans of the old Provisional Governments were expended, except where such was for the construction of Railways. The figures given for New South Wales under the head of "Railways" include loan expenditure on State Tramways to the amount of £1,526,817.

In the preceding table a large sum has been placed under the head of "Other Works and Services;" in the following statement

this amount has been subdivided into several heads. In regard to New Zealand, the item under the heading of "Defence Works" also includes light-houses and harbour works, and in "Miscellaneous" the provincial loans prior to 1876 are included. The returns for each Colony were :— Analysis of works and services.

Colony.	Roads and Bridges, Harbours, &c.	Defence Works.	Immigration.	Miscellaneous.	Total.
	£	£	£	£	£
New South Wales.....	3,987,472	1,096,530	569,930	2,182,328	7,836,260
Victoria	717,166	98,299	.....	1,877,775	2,693,240
Queensland.	2,829,718	198,760	2,760,608	952,080	6,741,166
South Australia.....	2,512,162	234,414	.....	2,083,028	4,829,604
Western Australia	208,434	.....	12,706	190,398	411,538
Tasmania.....	1,759,130	118,993	235,000	1,023,754	3,136,877
New Zealand	3,708,817	900,370	2,146,209	15,702,387	22,457,783
Australasia	15,722,899	2,647,366	5,724,453	24,011,750	48,106,468

The subjoined table shows the expenditure per inhabitant on the basis of the figures given in the table on the preceding page :— Loan expenditure per inhabitant.

Colony.	Amount spent on Works yielding direct Revenue.				Other Works and Services.	Total.
	Railways.	Water Supply and Sewerage.	Electric Telegapihs	Total.		
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
New South Wales...	31 13 6	5 3 7	0 13 8	37 10 9	6 12 8	44 3 5
Victoria	29 10 11	6 10 5	.....	36 1 4	2 6 6	38 7 10
Queensland	43 7 10	4 3 10	2 0 6	49 12 2	16 8 7	66 0 9
South Australia ..	36 16 9	9 2 0	2 12 9	48 11 6	14 16 7	63 8 1
Western Australia	19 15 6	0 3 1	4 9 4	24 7 11	7 7 1	31 15 0
Tasmania	23 11 1	.....	0 14 4	24 5 5	21 1 2	45 6 7
New Zealand.....	24 5 3	0 17 8	1 0 8	26 3 7	34 19 5	61 3 0
Australasia	31 0 3	4 16 6	0 17 11	36 14 8	12 5 4	49 0 0

EXPENDITURE BY THE GOVERNMENT AND LOCAL BODIES.

General and local Government expenditure.

The question of local Government is dealt with in another place. It is well, however, to give here a statement of the total amount which passes through the hands of the general and local Governments. The sum can in no sense be taken as the cost of governing the various Colonies, which, as will appear from page 335, may be taken as £19,854,787.

Total expenditure.

The total sum expended by the general and local Governments of Australasia during the year 1892 fell little short of £43,000,000, or £10 19s. 3d. per head. Of this large sum £30,938,446, or £7 17s. 9d. per inhabitant, was spent by the general Governments from their revenues, and £6,963,409, or £1 15s. 6d. per inhabitant, from loans; the local expenditure, exclusive of course of a sum equal to the Government endowment, was £5,092,914, or £1 6s. per inhabitant.

Expenditure of each Colony.

The following was the General, Loan, and Local Expenditure for each Colony :—

Colony.	Government.		Local.	Total.
	General.	Loans.		
	£	£	£	£
New South Wales	10,536,820	3,014,680	923,077	14,474,577
Victoria	8,482,917	988,580	2,061,660	11,533,157
Queensland	3,625,281	1,035,523	433,002	5,093,806
South Australia	2,737,133	547,382	221,688	3,506,203
Western Australia	550,616	342,632	..... *	893,248
Tasmania	851,559	561,660	180,752	1,593,971
New Zealand	4,154,120	472,952	1,272,735	5,899,807
Australasia	30,938,446	6,963,409	5,092,914	42,994,769

* No returns.

Expenditure per inhabitant.

The expenditure per inhabitant under the same classification will be found below. The average expenditure per inhabitant on account of local Government given for New South Wales is to

some extent misleading, as about 40 per cent. of the population live outside the boundaries of the municipalities :—

Colony.	Government.		Local.	Total.
	General.	Loans.		
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
New South Wales	8 18 6	2 11 0	0 15 7	12 5 1
Victoria	7 6 6	0 17 1	1 15 8	9 19 3
Queensland	8 16 8	2 10 6	1 1 1	12 8 3
South Australia	8 8 0	1 13 7	0 13 8	10 15 3
Western Australia	9 16 8	6 2 5	.....*	15 19 1
Tasmania	5 14 4	3 15 5	1 4 3	10 14 0
New Zealand	6 9 4	0 14 9	1 19 8	9 3 9
Australasia	7 17 9	1 15 6	1 6 0	10 19 3

* No returns.

CURRENCY.

Coins of United Kingdom current.

The coins circulating in Australasia are those of the United Kingdom. Gold is the standard, the silver and copper current are more properly tokens than coins. Gold coins are legal tender to any amount, silver for an amount not exceeding forty shillings, and bronze for one shilling. The standard weight and fineness of each coin are given below. The least current weight of a sovereign is 122·5 Imperial grains, and a half-sovereign 61·125 grains :—

Standard weight of coins.

Denomination of Coin.		Standard Weight.	Standard Fineness.
		Imperial grains.	
Gold	Sovereign	123·27447	Eleven-twelfths fine gold, one-twelfth alloy, or decimal fineness ·91666.
	Half-sovereign	61·63723	
Silver	Crown	436·36363	Thirty-seven-fortieths fine silver, three-fortieths alloy, or decimal fineness ·925.
	Double Florin	349·09090	
	Half-crown	218·18181	
	Florin	174·54545	
	Shilling	87·27272	
	Sixpence	43·63636	
	Threepence	21·81818	
Bronze	Penny	145·83333	Mixed metal, copper, tin, and zinc.
	Halfpenny	87·50000	

Coinage of Australian Mints.

The only coins struck at the Sydney and Melbourne Mints are of gold, though silver and bronze of English coinage are also issued; the amounts of these issued during 1892 were at the Sydney Mint—silver, £13,925; bronze, £2,065; and at the Melbourne Mint—£2,475 and £760 respectively. The Sydney Branch of the Royal Mint was opened on the 14th May, 1855, and that in Melbourne on the 12th June, 1872. The amount of gold received for coinage up to the end of 1892, in the Sydney Mint was 19,490,466 oz., valued at £73,118,658, and that received into the Melbourne Mint amounted to 13,709,825 oz., valued at £54,844,576.

Gold minted at Sydney and Melbourne.

The following table shows the quantity of gold received into the two Mints to the end of 1892, that received from outside sources being distinguished from that locally produced:—

Country in which the Gold was raised.	Quantity received for Coinage.	
	Sydney Mint.	Melbourne Mint.
	oz.	oz.
New South Wales	7,703,075	13,115
Victoria	1,442,318	10,794,463
Queensland	7,684,888	9,437
South Australia	78,438	274,359
New Zealand	2,306,904	1,817,974
Other Countries	31,708	791,224
Old Coin, &c.	243,136	9,253
Total	19,490,467	13,709,825

Total value of Australasian gold.

The total value of gold raised in Australasia to the end of 1891 was £348,311,209, of which amount 36·74 per cent. passed through the Mints, during the same period.

The following table shows the amount of gold coin and bullion issued to the end of 1892 by each Mint:—

Mint.	Sovereigns.	Half-sovereigns.	Bullion.	Total Value of Coin and Bullion issued.
	£	£	£	£
Sydney	67,538,500	2,497,500	2,943,339	72,979,339
Melbourne	49,124,291	277,807	5,441,783	54,843,881
Total	116,662,791	2,775,307	8,385,122	127,823,220

The quantity of gold received into the Sydney Mint in 1892 was 785,208 oz., valued at £2,780,829, of which only 144,259 oz., or less than one-fifth, was the produce of New South Wales. Queensland contributed 578,757 oz., or nearly three-fourths of the whole, the remainder being chiefly from New Zealand and South Australia, and old coin received for reminting. The amount of gold received into the Melbourne Mint for the same year was 880,052 oz., valued at £3,491,757, of which all but one-fourth was the produce of Victoria. Gold minted in 1892.

The gold coin issued in 1892 from the Sydney Mint was 2,837,000 sovereigns. The Melbourne Mint issued 3,488,750 sovereigns during the year, but no half-sovereigns have been issued since 1887. The value of the gold coinage issued from the Sydney, Melbourne, and London Mints was as follows:— Gold issued from the Mints.

	£
Sydney	2,837,000
Melbourne	3,488,750
London	13,907,023

Besides gold coin, the Sydney Mint during 1892 issued gold bullion to the value of £872, and the Melbourne Mint to the value of £5,184. Bullion issued.

BANKING.

The laws relating to banks and banking at present in force are susceptible of great improvement; and the recent failure of many monetary institutions posing as banks has directed attention to Revision of banking legislation necessary.

the strong necessity for entirely revising the conditions under which deposits may be taken from the general public.

Returns required to be furnished.

All institutions transacting the business of banking are required by law to furnish quarterly statements of their assets and liabilities in a specified form, and from these statements and the periodic balance-sheets the tables in this chapter have been compiled. The returns furnished by the banks, though in compliance with the laws of the Colonies, are by no means so satisfactory as could be desired, being somewhat out of date, and cannot be taken without question as indicating the stability or otherwise of the banks. Thus, in the subsequent table, the total liabilities of the banks are given as £117,994,440, and the assets £169,764,673, showing a surplus of assets of £51,770,233. If the returns gave all the facts in relation to the operation of the banks, this surplus would be represented almost entirely by capital or funds provided out of their own resources, but the capital and reserve funds amount only to £24,809,251, so that there is a balance of about £27,000,000 to be otherwise accounted for. This sum represents deposits obtained in the United Kingdom, and used in their Australian business. The total British deposits with Australasian banks, however, is probably not less than 40 millions, for those held by the banks which have offices in New South Wales amount to about 30 millions.

Distribution of Banks.

Of the twenty-five banks operating in Australasia at the close of 1892, fourteen had offices in New South Wales, thirteen in Victoria, eleven in Queensland, nine in South Australia, five in Western Australia, four in Tasmania, and six in New Zealand. There was only one bank doing business in each of the seven colonies, two that did business in six colonies, one in five colonies, three in four, two in three, four in two, and twelve banks did not extend their business beyond the limits of one colony. The liabilities and assets of the twenty-five banks operating in the different colonies during the December quarter of 1892 are shown in the following table; the figures must be taken with the

qualifications already given. The following figures give the liabilities :— Liabilities of Banks.

Colony.	Notes in circulation not bearing Interest.	Bills in circulation not bearing Interest.	Deposits.		Balances due to other Banks.	Total.
			Not bearing Interest.	Bearing Interest.		
	£	£	£	£	£	£
New South Wales..	1,439,871	104,223	9,207,109	26,357,083	63,093	37,171,379
Victoria	1,210,565	132,235	9,672,997	30,355,172	170,191	41,541,160
Queensland	575,435	25,942	2,594,439	7,899,465	97,919	11,193,200
South Australia ...	400,156	10,733	1,699,113	5,800,405	49,630	7,960,037
Western Australia..	101,433	10,981	548,416	771,309	34,023	1,466,162
Tasmania	110,680	18,845	916,469	2,749,406	3,161	3,798,561
New Zealand	955,623	48,071	4,049,237	9,782,904	28,106	14,863,941
Australasia....	4,793,763	351,030	28,687,780	83,715,744	446,123	117,994,440

The assets for the same period were :— Assets of Banks.

Colony.	Coin.	Bullion.	Landed Property.	Notes and Bills discounted, and all other Debts due to the Bank.	Notes and Bills of other Banks, and Balances due from other Banks.	Total.
	£	£	£	£	£	£
New South Wales..	5,217,371	95,894	1,801,590	42,278,390	2,067,307	51,460,552
Victoria	7,805,397	373,890	1,962,707	52,631,227	396,721	63,169,942
Queensland	1,824,694	257,569	738,936	17,410,895	286,974	20,552,085
South Australia ..	1,612,820	19,043	402,505	7,270,715	162,402	9,691,620
Western Australia..	412,639	18,482	116,582	2,198,697	9,110	2,763,010
Tasmania	669,219	....	108,024	3,075,504	26,598	3,974,259
New Zealand	2,381,319	141,406	528,124	14,925,212	77,144	18,153,205
Australasia....	19,923,459	906,284	5,658,468	139,790,640	3,026,256	169,764,673

Certain assets of small amount, not classifiable under any of the sub-heads of the table, have been included in the total, and in the case of one Colony an over-statement of the assets of some of the banks has been rectified.

Liabilities consist chiefly of Deposits.

The preceding table shows that over 95 per cent. of the Australasian liabilities of the bank consisted of deposits, viz. :—£112,403,524 out of £117,994,440. The statements by banks in each colony, with the exception of Tasmania, distinguish between deposits at call and deposits bearing interest. In Tasmania, although not obliged by law to do so, the same distinction has been made by every bank but one ; and assuming the proportion of deposits at call to total deposits in that bank to be the same as in the case of the other banks doing business in Tasmania, the total deposits at call are as stated in the table, viz : —£28,687,780, or somewhat over 25 per cent. of all deposits.

Capital and Reserves.

The total shareholders' capital invested in all the banks amounts to £15,988,754, and the reserve profits £8,820,497. The capital, profits, and other information regarding banks are given below. The institutions are not stated separately, but grouped together under the heading of the colony or country in which their head-quarters are situated. The figures refer to the December quarter, 1892 :—

Banks whose Head Offices are in	Number of Banks.	Capital paid up.	Reserved Profits at the time of declaring last Dividend.	Total.
		£	£	£
England	6	6,150,000	2,535,144	8,685,144
New South Wales	4	2,834,637	2,575,037	5,409,674
Victoria	7	4,406,250	2,594,939	7,001,189
Queensland	3	1,424,335	552,465	1,976,800
South Australia	1	400,000	157,149	557,149
Western Australia	1	80,000	100,039	180,039
Tasmania	2	293,532	231,098	524,630
New Zealand	1	400,000	74,626	474,626
Total	25	15,988,754	8,820,497	24,809,251

Metallic reserves.

The following table shows the metallic reserves held by the banks as against their total Australasian liabilities, and also against their liabilities at call, viz., deposits at call and note circulation.

The table, however, cannot be taken as complete, as those banks which receive deposits in England and elsewhere, and which do not include such deposits or liabilities, are shown in too favourable a light:—

Colony.	Coin and Bullion.	Total Liabilities.	Liabilities at Call.	Percentage of Coin and Bullion.	
				To Total Liabilities.	To Liabilities at Call.
	£	£	£		
New South Wales	5,313,265	37,171,379	10,646,980	14·29	49·90
Victoria	8,179,287	41,541,160	10,883,562	19·69	75·14
Queensland	2,082,263	11,193,200	3,169,874	18·60	65·69
South Australia ..	1,631,863	7,960,037	2,099,269	20·50	77·73
West'rn Australia	431,121	1,466,162	649,849	29·40	66·34
Tasmania	669,219	3,798,561	1,027,149	17·62	65·15
New Zealand.....	2,522,725	14,863,941	5,004,860	16·97	50·41
Australasia ...	20,829,743	117,994,440	33,481,543	17·65	62·21

It will thus be seen that New South Wales holds the weakest position in the proportion of cash reserves both to total liabilities and liabilities at call. Weak position of New South Wales.

BANK CRISIS.

The foregoing figures relate to the affairs of the banks prior to the close of 1892, but since that date very considerable changes have taken place in the banking position. Distrust in companies receiving deposits had been growing for some time, and the failure of various land companies and building societies during the year 1891 created a very restless feeling, which was accentuated by the failure of the Mercantile Bank of Melbourne. Constant withdrawals of deposits were made from nearly all the banks, and many institutions felt that they would not long be able to meet the drain. The first large institution to suspend payment was the Commercial Bank of Australia, and after that failures followed in rapid succession until thirteen banks had Financial crisis.

Liabilities of suspended Banks.

closed their doors. The interests involved in the thirteen banks which have closed are as follows :—

Due to the Shareholders	£13,995,451	Cash and Investments..	£17,633,626
		Advances, &c.	84,901,986
Due to the Public	91,982,598	Bank Premises	3,740,626

or a total liability of £105,978,049, including note issues equivalent to £2,767,883, and apparent assets of £106,276,238.

Position of the other Banks.

The latest available figures for the twelve banks which survived the panic are as follows :—

Bank.	Capital Paid-up.	Reserved Profits.	Coin and Bullion.	Deposits.	
				Australasian.	Other.
	£	£	£	£	£
Bank of New South Wales.....	1,250,000	1,008,330	3,428,877	17,744,342	2,815,662
Bank of Australasia.....	1,600,000	809,641	2,702,370	11,979,300	3,148,506
Union Bank of Australia (Limited)	1,500,000	1,011,056	3,093,710	12,696,760	5,053,559
Bank of New Zealand.....	900,000	53,331	1,045,959	5,018,923	2,344,122
City Bank of Sydney	280,000	187,845	139,683	1,385,406	29,668
Colonial Bank of New Zealand....	400,000	74,626	261,121	1,629,402	676,803
Commercial Bank of Tasmania (Limited).	141,492	192,025	259,881	1,600,200	184,670
National Bank of New Zealand (Limited).	250,000	6,834	238,639	1,090,442	523,167
Bank of Adelaide.....	400,000	157,149	190,070	1,093,190	33,791
Royal Bank of Australia (Limited)	300,000	7,659	36,024	131,351	262,568
National Bank of Tasmania (Limited).	152,040	39,073	56,208	303,929	14,984
Western Australian Bank.....	80,000	100,039	66,306	430,777	5,586

Amount of advances.

These institutions had made advances to customers to the extent of £61,347,586.

Reconstruction schemes.

The suspended banks have almost all put forward schemes for reconstruction, for the most part based on an extension of the maturing dates of deposits, either by the exchange of that form of security for preference shares or for other deposit receipts at long dates, some being as distant as fifteen and twenty years. At the same time calls have been made on shareholders for over five millions of money. The reconstruction schemes of the recently-suspended banks have, with some slight modifications, been approved by both creditors and shareholders, and by the time this volume is issued the whole of the institutions which closed their doors subsequent to the 5th of April, 1893, it is hoped, will have resumed business.

Action of the Governments.

One feature of the crisis was the prompt action of the Government of New South Wales—first, in framing and passing through the Legislature a measure giving the Executive power to declare the notes of the banks of issue legal tenders; and, further, in obtaining authority for the issue of Treasury notes to the extent of half the amount standing to the credit of current accounts in suspended banks. Relief measures were also adopted by the Government of Queensland.

DEVELOPMENT OF BANKING.

Extent of banking operations.

Considering the population of these colonies the banking operations of Australasia have attained enormous development. The following table from Mulhall's Dictionary shows the capital employed in banking, and the amount of deposits in some of the principal countries. The figures regarding Australasia are brought down to the latest date :—

Country.	Million £.			Amount per Inhabitant.
	Paid up Capital and Reserves.	Deposits.	Total.	
				£
United Kingdom	284	626	910	24
France	140	128	268	7
Germany	85	146	231	5
Russia	42	64	106	1
Austria	45	102	147	4
Italy	25	83	108	4
Spain	31	16	47	3
Portugal	6	4	10	2
Belgium	11	19	30	5
Holland	14	6	20	4
Sweden	9	15	24	5
Norway	5	1	6	3
Denmark	2	21	23	12
Switzerland	5	12	17	6
Cape Colony	2	7	9	6
Argentina	12	17	29	8
Uruguay	3	5	8	12
United States	270	760	1,030	16
Canada	13	27	40	8
Australasia	25	112	137	34

SAVINGS BANKS.

Australasian Savings Banks.

In all the colonies Savings Banks are in existence, either directly or indirectly under the control of the State, to enable the working classes to securely invest their surplus earnings. These banks have been developed to a larger extent in Victoria than any other province, and from the number of deposits it would appear that twenty-six persons out of every hundred in that colony have accounts standing in their names in the Savings Banks. The highest average amount per depositor is in Queensland, while the amount of deposits as compared with population is greatest in South Australia :—

Colony.	No. of Depositors.	Amount of Deposits.	Average amount per Depositor.	Average amount per head of Population.	Depositors per 100 of Population.
		£	£ s. d.	£ s. d.	
New South Wales ...	158,426	5,342,135	33 14 5	4 11 8	13
Victoria	300,781	5,715,687	19 0 1	4 18 9	26
Queensland	46,259	1,660,753	35 18 0	4 0 11	11
South Australia	78,795	2,217,419	28 2 10	6 13 11	24
Western Australia ...	3,564	46,181	12 19 2	0 17 4	7
Tasmania	26,916	554,417	20 12 0	3 12 8	18
New Zealand	126,886	3,406,949	26 17 0	5 7 6	20
Australasia ...	741,627	18,943,541	25 10 10	4 17 0	19

Savings Banks in other countries.

The following table shows the like information for some of the principal countries of the world, compiled from the latest available returns :—

Country.	No. of Depositors.	Amount of Deposits in Savings Bank.	Average Amount per Depositor.
		£	£ s. d.
United Kingdom	6,628,677	114,483,567	17 5 5
Sweden	1,062,231	15,247,012	14 7 1
Norway	416,713	9,424,307	22 12 4
Holland	499,445	5,980,000	12 0 0
Prussia	5,029,174	144,462,000	28 14 6
Belgium	731,057	14,641,863	20 0 7
Switzerland.....	802,697	23,749,000	29 11 11
Italy	3,915,405	80,646,602	20 12 0
France	7,682,646	160,141,289	20 16 11
Denmark...	696,578	20,980,442	30 2 5
United States.....	4,781,605	352,421,610	73 14 1
Australasia, 31 Dec., 1891 ...	741,627	18,943,541	25 10 10

The figures for the United States are given on the authority of the official Statistical Abstract, and are, to all appearances, correct. The Comptroller of Currency, in his report for the year 1892, gives the total deposits in Banks making returns as over 320 millions sterling.

Total deposits.

If to the amounts deposited in Savings Banks as shown above be added the deposits in Chartered Banks it will be seen that the total sum on deposit in these institutions is equal to nearly £33 for each inhabitant of Australasia. The largest amount on deposit as compared with population is found in Victoria with £39 11s. 10d., or more than £6 above the average of all the colonies. The particulars for each will be found below :—

Colony.	Deposits in Banks (Averages for the last quarter of 1892).	Deposits in Savings Banks, 1891-92.	Total Deposits.	Amount of Deposits per head of Population.
	£	£	£	£ s. d.
New South Wales.....	35,564,192	5,342,135	40,906,327	34 3 5
Victoria	40,028,169	5,715,687	45,743,856	39 11 10
Queensland	10,493,904	1,660,753	12,154,657	28 17 0
South Australia.....	7,499,518	2,217,419	9,716,937	28 15 2
Western Australia ...	1,319,725	46,181	1,365,906	23 5 7
Tasmania	3,665,875	554,417	4,220,292	27 11 2
New Zealand..	13,832,141	3,406,949	17,239,090	26 10 1
Australasia.....	112,403,524	18,943,541	131,347,065	32 19 1

Other Investment Societies.

Large sums are also deposited with various Building and Investment Societies, but the returns are deficient. The latest available returns show that the amounts so invested were, in New South Wales £2,082,223, Victoria £4,439,695, New Zealand £258,346.

LIFE ASSURANCE.

Law relating to Assurance.

The law in some of the colonies does not provide for the publishing of sworn returns by Life Assurance Companies, and

although valuable and interesting reports are made annually by some companies, it has been found quite impossible to distinguish the progress of assurance in each individual colony. Most of the companies have extended their business beyond the Colony in which their chief office is established; the following figures therefore refer to Australasia generally, though only to those offices whose head-quarters are in the colonies. The assets of eleven societies amount to £19,181,179, of which £10,618,052 are invested in mortgage, £3,359,053 in loans on policies and personal security, £1,459,348 in Government securities, £124,018 in shares, £1,999,405 in freehold and leasehold property, cash, principally at fixed deposit, £1,040,364, and sundry debts, £580,939. The interest earned during the year amounted to £1,021,451, being at the rate of 5·80 per cent.; the net increase in the accumulated funds was £1,464,811.

Analysis of assurance business.

On analysing the accounts of these societies, as published, it is seen that the total number of outstanding policies, and the amount they represent, are not given. With regard to new business it

New policies.

will be found that in 1892 there were 30,876 policies issued, to the value of £8,677,055, or an average amount upon each policy of £281. This means an increase of 100 policies, but a decrease in value amounting to £442,860 as compared with the transactions of the previous year, and a decline in the average value of the policies of £16. Since the end of the year 1880 the societies in question issued altogether no less than 361,835 new policies, representing an assurance of £100,974,698, but there is nothing in the published accounts to show how many of these policies have lapsed, and how many still remain in force. The new annual premiums, which amount to £282,629, bear an average rate of £3·257 per cent. to the total amount of new assurance.

Premiums received.

The amount of premiums received in 1892 was £2,453,435, of which sum £266,888 was income from new premiums, and £2,186,547 was for renewals. The amount just given was £92,211 in excess of the income of the previous year. The total

receipts, obtained by adding to the premium income the items "consideration for annuities granted," "interest," and other receipts, came to £3,530,946, as against the sum of £3,361,613 in the year 1891, being an increase of £169,333. The average rate of interest realised by the ten offices from which this could be ascertained, as already stated, was 5·80 per cent.; some of the purely mutual offices, however, realised considerably over 6 per cent.

Claims and surrenders.

Claims and surrenders during the year amounted to £1,420,275, of which sum £917,356 was for claims with bonus additions, £159,614 for endowments and endowment assurances matured, and £343,305 for surrenders, &c. The total amount paid to policy-holders in 1892 was £1,524,964, as against £1,273,340 in 1891. The expenses of the year exceeded those of the previous year by £13,798. This is equivalent to an increase of 2·74 per cent. on the expenditure of 1891, while the increase in the premium income was 3·90 per cent., and in the gross income 5·04 per cent.

Increase of assurance business

If comparison be made between the years 1881 and 1892, an increase of 141 per cent. is shown in premium income and of 169 per cent. in gross income, while the amount paid for claims and surrenders increased in the same period by no less than 344 per cent. In 1881 claims and surrenders absorbed 31·42 per cent. of the premium income, while in 1892 this ratio had risen to 57·89 per cent. This increase is mainly due to the growth in age of the offices, but partly also to the small proportion of new business permanently retained. The total income for the twelve years was £29,167,144, of which amount £21,573,173 was contributed by policy-holders as premiums, and consideration for annuities granted, and £7,593,971 was from interest and other sources. Of the total income £10,188,405, or 34·93 per cent. was returned to policy-holders, and £4,817,069, or 16·52 per cent. was absorbed by expenses, while £14,161,670, or 48·55 per cent. has been saved, and added to the funds of the societies to meet future liabilities.

Average amounts assured.

With regard to the average amount assured per policy the following information has been compiled, based on the latest available returns :—

Country.	Average amount assured per Policy.
	£
Australasia	296
New South Wales	333
Victoria	273
Queensland	359
South Australia	263
Western Australia	383
Tasmania	278
New Zealand	285
United Kingdom	401
United States (New York only)	567
Canada	315

The average amount of assurance per head of population was in Australasia £19, Canada £11, United Kingdom £13, and the United States £13, while the average number of policies per thousand of population was in Australasia 65, Canada 35, United Kingdom 31, and the United States 22.

Bonus additions.

The average policy is scarcely a fair measure of thrift. In these colonies mutual assurance is the rule, and members of the various societies have acquired large bonus additions, and during 1891 the average existing policy and bonus of four of the leading assurance companies doing business in Australasia, was £342, as compared with the £296 shown in the comparative table. For the other countries named this information is not obtainable.

Prevalence of Assurance.

It would seem that the practice of assuring life is much more prevalent in Australasia than in any of the other countries, named ; and although the average sum assured by each policy is less than elsewhere, the number of policies is so much greater as compared with population that the amount assured, per inhabitant is considerably higher than in the other countries mentioned.

MONEY ORDERS, &c.

Money Order business.

The business transacted in the various Postal Departments under the system of money orders has grown to very large dimensions. This increase is due mainly to the greater facilities now afforded for the transmission of money by this method, though it is also to some extent attributable to the more general appreciation of the system by the working classes. The following is a statement of the business transacted during 1891 :—

Colony.	Orders issued.		Orders paid.	
	Number.	Amount.	Number.	Amount.
		£		£
New South Wales	488,326	1,577,744	507,849	1,518,987
Victoria	258,776	767,757	244,453	761,120
Queensland	127,800	402,532	88,397	288,971
South Australia	78,874	230,256	67,979	214,115
Western Australia	10,988	43,850	4,950	17,468
Tasmania	92,204	224,882	73,599	173,509
New Zealand	195,239	651,990	160,069	582,054
Australasia	1,252,207	3,899,011	1,147,296	3,556,224

Average value of orders.

The average amount of each money order issued was £3 2s. 3d., and the business done by New South Wales greatly exceeded that of any other member of the group. The average value of money orders issued in the United Kingdom during 1891 was £2 14s. 9d.

Postal notes.

Besides the money orders mentioned above, a system of postal notes is in force in all the colonies, New South Wales having adopted the system in July, 1893. These notes are issued at

fixed amounts, varying from 1s. to 20s. The number of notes paid and their value during 1891 were :—

Colony.	No.	Amount.
		£
Victoria	476,032	196,044
Queensland	31,803	6,997
South Australia	134,948	44,266
Western Australia	2,005	475
Tasmania	7,903	2,537
New Zealand	212,645	76,865
Total (six colonies)	865,336	327,184

These figures show an increase on those of the previous year of 133,708 in the number, and £46,383 in the value of Postal notes.

BANKRUPTCIES.

Number of bankruptcies.

During 1891 the number of bankruptcies was largest in New South Wales, the total number for the whole of Australasia being 3,176. This number includes 75 private arrangements under the Insolvency Act of South Australia, for which neither liabilities nor assets are shown, and 26 insolvencies in Western Australia, for which the amount of liabilities only is returned as £18,679. The cases for which complete returns are available numbered therefore only 3,075, and were distributed as follows :—

Colony.	Number of Sequestrations.	As shown in Bankrupts' Schedules.		
		Liabilities.	Assets.	Deficiency.
		£	£	£
New South Wales	1,189	989,778	454,211	535,567
Victoria	807	1,824,595	1,432,800	391,795
Queensland	300	197,078	107,604	89,474
South Australia	67	33,100	19,209	13,891
Tasmania	107	117,575	32,188	85,387
New Zealand	605	499,650	349,218	150,432
Total (six colonies)	3,075	3,661,776	2,395,230	1,266,546

Little, if any, reliance can be placed upon the statements made by bankrupts as to the state of their affairs, the assets being invariably exaggerated. Taking the figures given above for what they are worth, it would appear that the average amount of liabilities per bankrupt was £1,190; of assets, £778, showing a deficiency of £412. In the following table the average figures for the ten years ending 1891 are given; the assets, however, have been omitted, as the statements, as far as some of the colonies are concerned, are palpably worthless :—

Bankrupts' estimates unreliable.

Colony.	Number of Sequestrations.	Liabilities, as shown in Bankrupts' Schedules.
		£
New South Wales	1,020	807,942
Victoria	602	1,064,729
Queensland	262	210,707
South Australia	198	188,696
Tasmania	85	73,466
New Zealand	980	976,155
Total	3,147	3,321,695

PRIVATE WEALTH.

Australasian wealth.

THE first century of Australasian history closed on the 26th January, 1888. It is impossible to trace step by step the progress made during that period, as the data for the purpose are for the most part wanting. Sufficient material is, however, available, from which a comparative statement of the wealth of the colonies at different periods may be deduced. In the following figures the private wealth of the people has alone been considered, the value of the unsold lands of the State, as well as the value of public works, having been omitted. The subjoined table shows the private wealth of the whole of Australasia and the increase thereof at intervals of twenty-five years from the date when this territory was first colonized :—

January.	Australasia.	
	Amount of Private Wealth.	Increase during 25 years.
	£	£
1788	—	Country first colonized.
1813	1,000,000	1,000,000
1838	26,000,000	25,000,000
1863	181,000,000	155,000,000
1890	1,169,000,000	*988,000,000

* Increase for 27 years.

Marvellous increase.

The progress exhibited in this table is marvellous, and as regards ratio quite unprecedented. Though Australasia has but the population of a province of one of the great European powers, in the wealth and earnings of its people it stands before most of the secondary States, and as regards wealth and income per head of population far before any other country. The following figures are designed to illustrate this truth. Those relating to the United

States of America are computed from data derived from the last census of that country; the other figures are given upon the authority of the Dictionary of Statistics.

The figures in regard to the wealth of Australasia do not include the value of State property, which in these colonies consists, besides unsold land, chiefly of railways, telegraphs, water and other works, more or less reproductive. If the value of public works were included, the wealth of Australasia would be at least 1,329 millions. Value of Public Works.

Country.	Private Wealth.	Wealth per head.	State Income per head.	Private Income per head.	Ratio of Public Debt to Private Wealth.
	Millions.	£	£	£	₱ cent.
Australasia (1890)	1,169	309·0	7·8	*57·0	15·8
United Kingdom	9,400	246·1	2·3	33·7	7·7
France	8,598	221·6	3·1	27·8	14·7
Germany	6,437	132·5	3·8	22·2	6·8
Russia	5,089	55·4	1·0	11·5	14·8
Austria-Hungary	3,855	96·1	2·5	15·5	15·0
Italy	2,963	97·8	2·4	12·2	15·5
Spain	2,516	142·9	1·8	16·5	10·3
Portugal	408	82·7	1·8	12·1	27·5
Sweden and Norway	880	122·1	1·1	21·6	2·2
Denmark	404	192·4	1·4	32·5	2·8
Holland	980	213·0	2·3	22·6	9·1
Belgium	1,007	165·0	2·3	28·0	7·6
Switzerland	494	164·7	0·9	19·0	3·5
United States	12,824	205·2	1·5	39·0	1·7
Canada	980	196·0	1·6	26·0	6·1
Argentine Republic	509	164·2	4·8	24·0	21·6

* New South Wales only.

Land and the improvements thereon form the great bulk of Australasian wealth, for out of the 1,169 millions at which it is valued, about 821 millions, or 70 per cent., is represented by what is termed real estate. The valuation of lands and buildings presents no difficulty except in the case of Western Australia and New South Wales; as regards the first-mentioned colony the only data procurable are very meagre, but the area, situation, and use to which the lands are put are known, and from these data an approximation has been formed. Value of Land.

Land in New South Wales.

Only a very small part of New South Wales is under municipal government, and until the last Census was taken the valuation of lands outside the municipal area could only be a matter of speculation. The Census Act, however, was so framed that every holder of land was required to make a declaration of the value of his property, and from the return so obtained the present estimate was compiled. The value of lands, buildings, and other improvements thereon has been set down at £303,152,000; of this sum 141 millions represents property subject to municipal taxation, 117 millions country lands outside municipalities, and 45 millions the improvements thereon.

Land in Victoria.

In Victoria the valuation of municipalities is 214 millions; an inspection of the returns, however, will show that this is an under-estimate, as some of the municipalities, notably Melbourne City, have placed the capital value at only ten times the annual value, which is obviously too low a figure. Making a correction on this account the estimated valuation of property within municipalities may be set down at 233 millions; to this must be added the value of improvements on pastoral properties which are not reckoned in the municipal valuation. In New South Wales similar improvements, which originally cost 73 millions, were valued by the owners at 45 millions, equal to 11s. 3d. per head of sheep depastured. Reckoning every head of large stock as equal to ten sheep, for Victoria these improvements are taken to be worth 13s. 4d. per sheep, which fixes their value at 23 millions, making the total value of land and improvements in Victoria 256 millions.

Land in the other Colonies.

For South Australia and New Zealand the valuations adopted are those of the Local Taxation Offices, but slightly increased; for Western Australia the land has been valued at slightly over 5 millions, which sum is liable to correction should there be any evidence of a more exact valuation. For the other Colonies the municipal values have been accepted, with the addition for improvements not valued by the municipalities of 8s. per sheep for Queensland, and 12s. 6d. for Tasmania.

The plan adopted in valuing the other forms of wealth is given in the previous issue of this work, and as it is marked by no features of special interest need not be repeated on this occasion.

The valuation of each of the principal elements of wealth is as follows :— Classification of items of wealth

Classification.	£
Land, Houses, and Permanent Improvements	821,280,000
Live Stock	120,205,000
Coin and Bullion	33,582,000
Merchandise	51,151,000
Household Furniture and Personal Property	62,874,000
Shipping owned in Colony	7,049,000
Mines and Mining Plant	38,033,000
Plant employed in Agricultural, Manufacturing, and other industries not elsewhere included	35,260,000
Total	1,169,434,000

The distribution amongst the various provinces was as stated below :— Distribution of wealth amongst the various Colonies.

Colony.	Private Wealth.	Per Inhabitant.
	£	£
New South Wales	412,484,000	368
Victoria	344,224,000	304
Queensland	118,414,000	301
South Australia	99,141,000	310
Western Australia	10,619,000	218
Tasmania	34,360,000	236
New Zealand	150,192,000	240
Australasia	1,169,434,000	309

An estimate of the indebtedness of Australasia to persons residing abroad cannot be made with any degree of accuracy ; an estimate for New South Wales has, however, been made which shows that its indebtedness, with the annual interest or income therefrom at the close of the year 1891, was,— Money owned outside Australasia.

	Amount.	Income.
To public creditors	46,472,000	1,826,000
Municipal creditors	1,128,800	50,800
private creditors and absentees	51,256,000	3,450,000
	98,856,800	5,326,800

If it be assumed—and such an assumption will not appear unreasonable to those who know Australasia well—that the private indebtedness per inhabitant of the seven Colonies is about equal to that of New South Wales, the estimated indebtedness of Australasia to persons residing outside its limits, and chiefly in Great Britain, isnot less than £191,000,000 as compared with an estimated private wealth of £1,169,434,000, shown above. This, however, does not take into consideration the sum of £201,500,000 owing by the various Governments and Municipalities, which would make the total indebtedness £392,500,000.

Distribution of property.

If the number of those who leave property at death compared with the total number of deaths in any year, and the value of the estates of such persons, be taken as indicative of the distribution of wealth throughout the rest of the community, it would appear that 12·3 per cent. of the inhabitants of Australasia have property, which is a much wider distribution than obtains elsewhere. The distribution appears most general in South Australia and Victoria. The average value of estates is greatest in Victoria, and least in Tasmania, as the following table shows. The value of estates, however, is not a point upon which much stress can be placed. The occurrence at irregular intervals of the deaths of very wealthy persons tends to give undue importance to the colony affected; for in a population numerically small the average may possibly be affected by one such death. The returns for New Zealand are not available :—

Colony.	Per centage of persons dying who left property to total deaths.	Average Value of deceased Estates.
		£
New South Wales	11·56	2,864
Victoria	14·28	2,601
Queensland	7·77	1,634
South Australia	14·27	1,350
Western Australia.....	10·93	.....
Tasmania	11·06	1,223
Average	12·31	2,395*

* Western Australia not included.

Present financial depression.

No attempt has been made in the foregoing pages to bring the estimates of private wealth to a date later than 1890, although it cannot be denied that very material changes have since taken place in the value of most descriptions of property. Allusion has been made in a previous chapter to the disastrous effects of the collapse of land companies and building societies, to which many thousands had entrusted their savings, and to the still more serious losses entailed by the suspension of payment on the part of many old-established banks. The experience of all the provinces shows that the selling value of property has seriously fallen, but it would be idle to alter the estimates of 1890 to the conditions of May, 1893, seeing that a few months will probably show a material improvement. The conditions of productive industry are very hopeful. The country has been favoured with an unusual succession of good seasons, and the prices of Australasian produce, though tending to lower rates than formerly, have not fallen so much as the prices of the goods for which they are exchanged. It is not likely, or even desirable, that the values of certain investments, notably land, will reach their former speculative values, at least, for many years, but there is ample evidence that, with the expansion of population, there will still be ample scope for the remunerative employment of capital.

Prospects of the future.

LAND AND SETTLEMENT.

Diversity of land legislation.

THE systems adopted for a settlement of Crown lands differ in every Colony, and the conditions for acquiring land are of a more or less liberal nature according to the circumstances in which each province is placed. In Victoria, Queensland, and Tasmania, which are the offshoots of New South Wales, the Land Acts bear a considerable resemblance to one another, the differences being rather of degree than principle; various designations being given to what are practically the same forms of conditional occupation of Crown lands under the deferred payment system. In South Australia, Western Australia, and New Zealand, however, the influence of the mother Colony was not so directly felt, and new experiments in colonisation were made. South Australia, for instance, was originally settled upon the Wakefield system—famous alike for its originality and its failure. In the other two Colonies, under pressure of a different order of conditions, the objects of colonisation were sought to be obtained by legislation of a novel character.

The Wakefield system.

The following pages are devoted to a description, in as concise a form as the subject will allow, of the systems of land legislation in the Seven Colonies of Australasia, and summaries are given, from the latest available data, of the results obtained under the various methods, from a practical point of view.

LAND LEGISLATION IN NEW SOUTH WALES.

Various systems of land alienation in New South Wales.

The systems adopted for the settlement of an industrial population on the lands of New South Wales have varied according to the Colony's progress and development. In the earliest period land was alienated by grants, orders, and dedications, the power of disposing of the Crown lands resting solely with the Governor.

In August, 1831, the principle of sale by auction was introduced, the minimum for country lands being fixed at 5s. per acre, but raised to 12s. in 1839. In 1843 the minimum was raised to 20s. per acre, with liberty to select at the upset price country portions not bid for, or on which the deposits had been forfeited. This is the first appearance of the principle of selection in the land legislation of New South Wales, but it was limited to lands that had been surveyed for sale by auction. This system lasted until the introduction of new legislation by the Parliament of New South Wales, and the abrogation of the Orders in Council which had hitherto constituted the authority under which land was alienated.

First form of land selection.

The discovery of gold in 1851, and the consequent rush of population to Australia, greatly altered the conditions of colonisation, and as the interest in gold-digging declined, so did the desire for settlement on the land increase, and the question had to be dealt with in an entirely new spirit, to meet the wants of the class of immigrants now desirous of being placed upon the soil. The agitation that thus sprang up resulted in the passing of the Crown Lands Act of 1861, under the leadership of Sir John Robertson. This measure had for its object the establishment of an industrial population side by side with the pastoral tenants. With this view an entirely new principle was introduced —that of free selection in limited areas before survey, coupled with conditions of residence and improvement, and the land was sold at 20s. per acre for country lots, payable by annual instalments carrying interest.

Land Act of 1861.

The occupation of the waste lands of New South Wales for pastoral purposes was at first allowed under a system of yearly licenses. Any person could apply for such a license to occupy runs, the extent of which was limited only by the boundaries of the surrounding stations, the license fee being fixed at £10 per annum for a section of 25 square miles, or 16,000 acres in extent, £2 10s. being charged for every additional 5 square miles. This system of yearly licenses was succeeded by one in which the

Pastoral occupation.

squatter was given fixity of tenure, with a license fee calculated upon the stock-carrying capacity of the runs, instead of the extent of land occupied. The Occupation Act of 1861 inaugurated a new system, limiting the tenure of pastoral leases to five years in all but the first-class settled districts, and leaving the whole of the pastoral leases open to the operations of the free selectors. Such evils were found to result from this system that in 1884, and again in 1889, Parliament was led to adopt amendments which are now in force, and the provisions of which, as regards pastoral occupation, are described further on. The Acts mentioned, while maintaining the principle of selection before survey, aimed at giving fixity of tenure to the pastoral lessees, and obtaining a larger rental from the public lands, while at the same time a restriction was placed on the sale of lands unconditionally.

Occupation Act of 1861.

The Amending Acts of 1884 and 1889.

Free Selection before survey.

Territorial divisions.

Land Court.

Under these measures New South Wales is subdivided into three divisions, each subdivided into various land districts, one or more such districts forming local divisions, the administration of which is entrusted to a Local Land Board, composed of a chairman and not more than two assessors. The decisions of these Local Land Boards may be appealed against to the Land Court. This Court is composed of a President and two members appointed by the Executive, whose decisions in matters of administration have the force of judgments of the Supreme Court; but whenever questions of law become involved, a case may be submitted to the Supreme Court, either upon the written request of the parties interested, or by the Land Court acting of its own accord. The judgments given on this appeal are final and conclusive.

Methods of acquiring land.

Under the enactments at present in force, land may be acquired by the following methods:—1st. By conditional and additional conditional purchases with residence. 2nd. By conditional purchase without residence. 3rd. By the preferent right of purchase attached to conditional leases. 4th. By improvements purchases in gold-fields. 5th. By auction sales. 6th. By special sales without competition.

The maximum area allowed to be conditionally purchased by a selector differs in the Eastern and Central Divisions of the Colony, and in the Western Division land can be occupied only in the form of a lease, or alienated by auction or special sale as further described.

Conditional purchases.

The conditions for the purchase and occupation of Crown lands are more restricted in the Eastern than in the Central and Western Divisions. Nevertheless, any person above the age of 16 years may, upon any part of the Crown lands not specially exempt, select an area of from 40 to 640 acres, together with a lease of contiguous land not exceeding thrice the area of the conditional purchase. The price demanded is £1 per acre, of which 2s. per acre must be deposited when making the application, and the balance paid, together with interest at the rate of 4 per cent., by instalments of 1s. per acre per annum. Payment of instalments commences at the end of the third year, but after the selector has completed his period of enforced residence he may pay up the balance in one sum at any time. The selector must reside on his selection for a period of five years, and within two years must erect a substantial fence around his selection, though in some cases other permanent improvements will be allowed in lieu of fencing. After the completion of the term of residence the selector may purchase additional areas, contiguous to the original purchase, or he may purchase his conditional leasehold if he should have one. With regard to additional purchases fencing is required, but residence is not enforced. Married women judicially separated may select in their own right, and minors taking up lands adjoining the selection of their parents may fulfil the condition of residence under the paternal roof.

Residence and improvements.

Conditional leaseholds.

Conditional leaseholds, in conjunction with a selection, may be held for fifteen years at a rental fixed by the Land Board. These leaseholds must be fenced within two years, one fence, however, being allowed to enclose both the conditional purchase and the lease. Conditional leases may at any time be converted into

purchases, and the term of residence on both need not exceed five years from the date of application.

Non-residential selections.

Land may be selected free from conditions as to residence, but the maximum area is then limited to 320 acres, and no conditional lease is granted. The selection must be fenced in within twelve months after survey, and within five years additional improvements must be made to the value of £1 per acre. The price demanded is £2 per acre, and the deposits and instalments are double those required in the case of an ordinary conditional purchase. No person under 21 can take advantage of this clause, and no non-residential selector is allowed to make any other conditional purchase whatever under the Act.

Special areas.

Special areas may be thrown open to selection under special conditions, the price not to be less than £1 10s. per acre, and the maximum area 320 acres. Non-resident selectors are charged double the rate paid by those who do reside.

Central Division.

In the Central Division land may be conditionally purchased under the same terms as to residence, fencing, improvements, price, and mode of payment as required in the Eastern Division; but the limit of an individual selection has been fixed at 2,560 acres, with a corresponding increase of the conditional lease to three times that area. The acreage which may be purchased without residence, as well as the conditions in regard thereto, are the same for the Central as for the Eastern Division. In special areas the maximum extent of a selection has been fixed at 640 acres in the Central Division.

Limit of area, and other conditions.

The Western Division embraces an area of 79,970,000 acres, watered entirely by the Darling River. This part of New South Wales is essentially devoted to pastoral pursuits. Conditional purchases, except on special areas, are not allowed in this division, but permanent pastoral settlement is encouraged in the form of homestead leases. Homestead leases for fifteen years may be granted within the resumed areas or vacant lands in the Western Division, in areas of not less than 2,560 acres nor more than 10,240

Homestead leases.

acres. A deposit of 1d. per acre must be paid with the application, and the lessee is required to reside upon his lease for six months out of each of the first five years of his lease. The whole area must be fenced within two years, except the Land Board allow other improvements to be erected instead. An extension of the lease for seven years may be granted, provided that the carrying capacity of the land has been improved, and the land benefited. At the end of the final term, the lease may be put up to auction or tender, without compensation for improvements to the outgoing tenant. A new incoming tenant will, however, have to pay the Government for existing improvements at a valuation. Holders of pastoral leases may not also hold a homestead lease, and no person may hold more than one such lease.

Pastoral leases.

Under the Act of 1884 pastoral leases were surrendered to the Crown, and divided into two equal parts. One of these parts was returned to the lessee under an indefeasible lease for a fixed term of years, while the other half, called the resumed area, might be held under an annual occupation license, but was always open to selection—by conditional purchase in the Eastern and Central Divisions, and by homestead leases in the Western Division. Under the Act of 1889, the tenure of pastoral leases in the Western Division was fixed at twenty-one years, with a fresh assessment every seven years, and the right of extension at the end of seven years if the land has been improved in a satisfactory manner. In the Central Division, a pastoral lease extends to ten years, and in the Eastern Division to five years only. All improvements revert to the Crown at the end of the lease, without compensation. Pastoral lessees, in applying for an occupation license for the resumed area, must make a deposit at the rate of £2 per section of 640 acres.

Miscellaneous leases.

In addition to the pastoral and homestead leases, special leases on favourable terms are granted of scrub lands, snow lands—that is, lands covered with snow during a part of the year,—inferior lands, and portions of land required for the protection of artesian

Auction sales.

wells. There are also annual leases for pastoral purposes, and residential leases on gold and mineral fields. Auction sales to the extent of not more than 200,000 acres in any one year, are permitted, the upset price to be fixed by the Minister—town lands not to be less than £8 per acre, while the minimum for suburban lots is fixed at £2 10s., and for country lands at £1. Special terms can be made for the purchase of land on gold-fields, and for reclaimed lands,—and special leases are allowed in certain cases.

Labour Settlements Act of 1893.

At the close of the last Session of Parliament an Act was passed to establish and regulate labour settlements on Crown Lands, following in this the example set by New Zealand, and imitated by several continental Colonies. Under this Act the Minister may set apart certain areas for the purpose of establishing labour settlements, under the control of Boards appointed to enrol such persons as they may think fit to become members of such settlements. These Boards are empowered to make regulations concerning the work to be done in the settlement, including the surrounding thereof with a substantial fence, the apportionment of the work among the members, and the equitable distribution of wages, profits, and emoluments, after providing for the cost of the maintenance of the members in the settlement. The Boards may establish and manage any trade or industry, and may by regulations dispose of and apportion the profits and proceeds derivable therefrom among the enrolled members. They are also authorised to make regulations concerning the collection, spending, and application of moneys, the cleanliness, good order, and government of the settlement. And these Boards are constituted as *corporate* bodies, with perpetual succession and a common seal; and the lands are leased to them as such, in trust for the members of the settlement, for a period of twenty-eight years, with a right of renewal for a like term.

Assistance from the Government.

When a Board has enrolled such a number of persons as the Minister may approve, it may apply for monetary assistance on behalf of the members of the settlement; and the Minister has

power to grant an amount not exceeding £25 for each enrolled member who is the head of a family dependent upon him, or £20 for each married person without a family, or £15 for each unmarried person. At the expiration of four years from the commencement of the lease, and each following year, 8 per cent. of the total sum paid to the Board shall be a charge on the revenues of the Board payable to the Treasury, until the said sum, with interest, at the rate of 4 per cent. per annum, has been repaid.

LAND LEGISLATION OF VICTORIA.

Early land legislation in Victoria.

During the earlier period of the colonisation of Victoria, then known as the District of Port Phillip, in the Colony of New South Wales, the alienation of Crown lands was regulated by the Orders in Council already referred to. In the year 1840, however, the upset price of country lands, which in the whole possession was limited to 12s. per acre, was increased to 20s. in the District of Port Phillip alone. The regime of Orders in Council continued until 1860, when the system of free selection of surveyed country lands was inaugurated, the uniform upset price being fixed at £1 per acre. No conditions were required to be fulfilled by the selector other than either a cash payment for the whole of his purchase, or for one half only, the remaining area being occupied under a yearly rental of 1s. per acre, with right of purchase at the original rate per acre. In 1862 a new Act was passed. Large agricultural areas were proclaimed, within which land could be selected at the uniform price of £1 per acre. Modifications were also introduced in the mode of payment, the maximum area allowed to be selected by one person being limited to 640 acres, with conditions as regards improvements or cultivation. This Act was amended in 1865, when the principle was introduced of disposing of Crown lands within agricultural areas by means of leases, with right of purchase after the fulfilment of certain conditions as to residence and improvements. A new

Free selection.

Act of 1862.

Act of 1865.

clause was added to meet the demand arising from the occupation of land adjacent to gold-fields. These Acts were, however, superseded by the Land Act of 1869 and the Pastoral Act of the same year. Hitherto the free selection system had, in Victoria, been limited to certain lands proclaimed within agricultural areas, and to allotments previously surveyed, thus avoiding the conflict which was then beginning to take place in New South Wales between the selector and the pastoralist. Under pressure of a sudden increase in the demand for land, arising from the enormous immigration into Victoria which had followed the discovery of gold, and the necessity for the people of finding other means of employment and other and more permanent sources of income, the Victorian Legislature adopted the system in vogue in the neighbouring colony with modifications to suit the local conditions. The Act of 1869 was amended in 1878, both these Acts expiring by effluxion of time in 1884, when a new Land Act was passed, the main tendency of which was to restrict the further alienation of the public estate by limiting the extent which might be sold by auction, and substituting for the existing method of selecting agricultural land a system of leasing such lands in certain defined areas, at the same time conserving to the lessee the privilege of acquiring from his leasehold the fee simple of 320 acres under the system of deferred payments.

Act of 1884.

The Mallee Scrub.

A portion of the Crown Domain, known as the "Mallee Scrub," comprising some 11½ million acres, wholly or partly covered with various species of stunted trees, was separately dealt with under a statute entitled the "Mallee Pastoral Leases Act of 1883." The land legislation of 1884, and the special enactment just referred to, have again been modified recently by the "Land Acts of 1890 and 1891," the following being the conditions under which agricultural lands may now be acquired, and the pastoral and Mallee scrub lands be leased in the Colony of Victoria.

Classification of lands.

The whole of the unalienated lands belonging to the Crown are divided into the following classes :—Pastoral Lands, Agricultural

and Grazing Lands, Auriferous Lands, Lands which may be sold by auction, Swamp Lands, State Forests, Timber and Water Reserves.

Pastoral leases.

Pastoral lands cannot be alienated in fee, but can only be obtained by lease, such lease to expire not later than December 29, 1898, no lessee to hold more than one allotment. The lease is granted to the first applicant, but should more than one person apply on the same day, the lease is put up to auction. If no bid is offered the lease may be subdivided, and so put up to sale. The Land Act of 1891 provides for the division of certain Crown lands into pastoral allotments, varying in size from 7,500 to 40,000 acres, and the rent to be reserved in every lease of a pastoral allotment is to be computed at the rate of 1s. per head of sheep, and 5s. per head of cattle, the number of such sheep and cattle being determined by the grazing capabilities of the land.

Conditions of a pastoral lease.

A pastoral lessee must pay half the rent in advance every six months; he cannot assign, sub-divide, or sub-let the lease; he must destroy all vermin and noxious growths, keep in good condition and repair all fences, tanks, dams, and other improvements, and must not destroy or ring timber, except for fencing purposes. The incoming tenant pays the outgoing one for all permanent improvements he has effected. Upon complying with all the conditions, the lessee may select 320 acres in one block for a homestead at £1 per acre, unless his lease contains a condition that he shall not be entitled to select upon it.

Agricultural allotments and grazing areas.

Agricultural and grazing lands are to be leased in "grazing areas," not to exceed 1,000 acres for any term of not more than fourteen years, at the end of the term the land to revert to the Crown, improvements to be allowed for at a valuation. In certain cases the Land Act of 1891 allows of the holding of more than one grazing area by the same person, provided the total area so held does not exceed 1,000 acres. The lessee may select out of his leased land an "agricultural allotment," not exceeding 320

acres in extent, or should he have selected under previous Acts he may increase his grazing area to 1,000 acres, and his agricultural allotment to 320 acres. The rent is fixed at from 2d. to 4d. per acre for agricultural areas, on an assessment by the Local Board, with the addition of 5 per cent. on the assessed capital value of any permanent improvements that may be on the land. The area of an agricultural allotment is excised from the grazing lease, and a license to occupy such allotment is granted to the selector. The holder of a grazing lease is subject to the same conditions as the pastoral lessee, but has to enclose his land with a substantial fence within three years.

Rent and conditions.

Conditions of license.

The license is issued for an agricultural allotment for a period of six years, at a yearly rental of 1s. per acre per annum, payable half-yearly in advance, and is not transferable. The licensee must destroy all vermin, and within six years must enclose his land, and effect improvements to the value of £1 per acre. He is also required to reside for five years. When these conditions are complied with, he may receive a Crown grant upon payment of 14s. per acre, or he can obtain a lease for fourteen years at 1s. per acre per annum, and at the end of the term he will receive his Crown grant.

Non-residential licenses.

Non-residential licenses are granted upon payment of double the ordinary license fee and other charges, but the area to be granted under non-residential licenses must not exceed 50,000 acres for the whole colony during any one year.

Vineyard and orchards.

For the purpose of enabling selectors to establish and cultivate hop-gardens, vineyards, or orchards, they may obtain a grant of part of their allotments not exceeding 20 acres, when so planted, upon payment of the difference between the amount of rent actually paid and the amount of purchase money.

Auriferous lands.

Licenses to reside on or cultivate lands comprised within an auriferous area may be granted for a period not exceeding one year, the area not to exceed 20 acres. Land classified as auriferous cannot be alienated, but grazing licenses for such lands may

be issued for a period of five years, renewable for a further period of five years, subject to the right of any person to enter upon the land for the purpose of mining. The Land Act of 1891, however, provides that in the case of auriferous lands which are considered as no longer profitable to work for gold within 50 feet of the surface, such land may be occupied in allotments not exceeding 5 acres for a period not exceeding seven years, and may be worked to the above-mentioned depth, at a rent of not less than 1s. per acre. Such land shall be used for the purpose of erecting a residence thereon, or for forming a vineyard, orchard, or garden, or any other like purpose. At the expiration of the seven years' lease the lessee may obtain a grant of such allotment upon payment of an amount fixed by the Local Board, which cannot be less than £1 per acre, the amount paid in license fees up to the date of purchase being deducted therefrom.

Auction sales.

Lands comprised within certain areas notified in a schedule attached to the Act and lands within proclaimed towns or townships or within any city, town, or borough, proclaimed before the passing of the Lands Act of 1884, may be sold at auction, the upset price for country lands being £1 per acre, the maximum area not exceeding 1,000 acres, payment being at the rate of 25 per cent. cash, and the balance in twelve equal instalments at the end of every succeeding quarter.

Swamp lands.

The Act contains also provisions for the alienation of certain lands designated as "swamp lands," subject to conditions as to their drainage.

Right to metals reserved.

The Land Act of 1891 contains also the following provisions:— Crown lands alienated from the date of the passing of this Act shall be sold, or otherwise alienated, leased, or licensed, only as regards the surface and down to such a depth as may be stated by order in Council; the sinking of wells is, however, authorized, but the rights to metals and minerals do not go with the land, but remain the property of the Crown.

Rent may be increased when value of land is enhanced.

Where Crown lands are enhanced in value by the proximity of railway or waterworks for irrigation purposes, &c., the Governor is empowered to increase the price of the land, and the minimum sum per acre for which such lands may be sold, as well as the minimum amount of rent or license fee to an amount which may not be less than one-eighth part greater, nor more than double the upset or minimum price for which such land might otherwise be acquired. But where lands have been sold, leased, or licensed at an enhanced price, and the works by reason of which such additional sums have been demanded, have not been constructed within ten years from the date of the order in Council fixing the enhanced price, all additional sums paid shall be returned.

Forests and reserves.

Land situated within the State forests, and timber and water reserves, cannot be alienated, and the administration of the Forests Domain of the Crown is placed in the hands of local Forest Boards empowered to recover fees for licenses to cut or remove timber.

Special leases.

Leases for special purposes may also be obtained under the provisions of this Act, which also provides for the administration of common lands, and miscellaneous matters incidental to land.

Mallee Pastoral Act.

Lands situated in the north-western district of Victoria, over which the mallee scrub extends, were before the year 1883 leased under the general provisions for the occupation of pastoral lands, but they were subsequently made the subject of a special enactment designated as the "Mallee Pastoral Act of 1883," amended in 1885 and partly recast under the present Land Act of 1890. Under this special legislation the mallee country is divided into two parts, the mallee border extending along the southern margin of the mallee country, and the mallee blocks situated to the north of the border extending to the banks of the Murray River. In the mallee border the land is parcelled out in divisions of various areas designated as "mallee allotments," the maximum area of which must not exceed 20,000 acres. These allotments may

Mallee allotments.

be leased for terms, which shall expire not later than the 1st December, 1903, the annual rent being from 10s. to 40s. per square mile.

Mallee blocks.

The "mallee blocks" are also of various areas, one portion of which can be held under a license to occupy for a period of five years, the other being leased for terms not to exceed twenty years from the passing of the Act on 1st December, 1883, at the rate of 2d. per head of sheep and 1s. per head of cattle for the first five years, double these amounts for the second period of five years, and 50 per cent. over the last figures for the remainder of the term. The annual rent is computed at the rate of 2d. per head of sheep, and 1s. per head of cattle depasturing thereon, but in no case must the yearly rent be less than 2s. 6d. for each square mile, or part of a square mile, of land.

Conditions of mallee leases.

The occupier or lessee of any part of a mallee block, or a mallee allotment, undertakes to pay the annual rent reserved in moieties; not to assign, subdivide, or cultivate any part of the same without the consent of the Board of Lands and Works; to destroy the vermin upon his block, and to fulfil certain other conditions; the Government retaining the right of resuming the land after giving due notice, compensation for improvements effected being given on assessment.

Vermin districts.

The Land Act also deals with districts described as "vermin districts," proclaimed as such by the Governor, the administration of which, for the special purpose of destroying vermin, is vested in local committees appointed by owners, lessees, and occupiers of the lands situated within such districts. For the purpose of erecting vermin-proof wire-fencing in certain districts a fencing rate may also be levied, the Minister also having power to deduct 5 per cent. of the amount levied in vermin districts for the purpose of paying for the erection of a vermin-proof fence between the mallee country and the mallee border.

LAND LEGISLATION OF QUEENSLAND.

Land system of Queensland.

The land legislation of New South Wales in force on the date when the Moreton Bay District was formed into the Colony of Queensland, gave place soon after that event to a new system of settlement, better adapted to the requirements of the newly constituted Colony. Following, to a certain extent, upon the lines adopted by their neighbours, the legislators introduced in their regulations the principle of free selection before survey, and that of sales under the deferred payment system. Having a vast territory to dispose of, which did not, however, offer the same attractions as the southern provinces did, not being endowed with so temperate a climate, the Queensland Legislature considered it necessary to exercise great liberality in offering its land in lots of a greater area, and at a smaller price per acre, than were required from settlers in the other Colonies. Most liberal were also the provisions enacted to facilitate the exploration and occupation for pastoral purposes of the huge and almost unknown territory which they possessed, and the Pastoral Act of 1869 led to the occupation by an energetic race of pioneers of nearly the whole of the waste lands of the province. The rapid development of its resources, and the consequent increase of population, necessitated, later on, a revision of the conditions under which land may be either alienated or occupied, but although the tendency has been to curtail the privileges of the pastoralists, the alienation of the public estate by selection—conditional and unconditional—has been placed under enactments of a still more liberal character than existed in the earlier days. Under pressure of the new social movement, Queensland has followed in the wake of New Zealand and South Australia and granted to the working classes great facilities for acquiring possession of the soil. The regulations at present in force are based upon the legislation enacted under the Crown Lands Act of 1884, and its subsequent amendments in 1886, 1889, and 1891.

Liberal land provisions.

Land may be acquired in the following manner :—By conditional selection : agricultural farms up to 160 acres, price 2s. 6d. per acre, payable in five years at the rate of 6d. per acre per annum, personal residence ; agricultural farms up to 1,280 acres, at from 15s. per acre, payable in five years, or a fifty years' lease at from 3d. upwards per acre per annum, residence, personal or by agent ; by unconditional selection, at from 20s. per acre, payable in twenty annual instalments ; by grazing farm selection, up to 20,000 acres, thirty years' lease at from ¾d. upwards per acre per annum ; by purchase at auction, agricultural land, upset price from 20s. per acre ; grazing land, upset price from 10s. per acre, payments spread over three years, without interest in the case of agricultural land, and with 5 per cent. added in the case of grazing land, when instalments are paid later than six months from date of sale. Methods of acquiring land.

The Colony is, as far as is necessary, divided into Land Agents' Districts, in each of which there is a Public Lands Office and Government Land Agent, with whom applications for farms must be lodged. Applications for farms must be made in the prescribed form, and be signed by the applicant, but may be lodged in the Land Office by his duly authorised attorney. There is connected with the Survey Department, in Brisbane, an office for the exhibition and sale of maps, and there full information respecting lands available for selection throughout the Colony can be obtained on personal application. Plans can also be obtained at the District Offices. Land Divisions.

The conditions under which country lands may be acquired for settlement by persons of either sex over eighteen years of age—married women excepted—are substantially as follows :—Surveyed areas of land are made available for selection as grazing farms over a great extent of Queensland territory within accessible distance of the seaboard. In these areas intending settlers can obtain grazing farms of areas up to 20,000 acres on lease for a term of thirty years at an annual rent varying according Conditions for acquiring country lands.

to the quality of the land, three farthings an acre being the minimum. This rent is subject to reassessment by the Land Board after the first ten years, and subsequently at intervals of five years, but the rent cannot be increased at any reassessment to more than 50 per cent. above that for the period immediately preceding. The applicant first obtains a license to occupy, which is personal to the applicant and is not transferable, but may be exchanged for a lease for the balance of the term of thirty years as soon as the farm is enclosed with a substantial fence, which must be done within three years. This lease may be transferred or mortgaged, or the farm may be subdivided, or, with the consent of the Land Board, be sub-let. The land must be continuously occupied by the lessee or his agent for the whole term of the lease, and cannot be made freehold. The cost of survey, ranging from something like £30 for a farm of 2,560 acres to about £65 for a farm of 20,000—subject to increase or decrease according to locality—must be paid with a year's rent when the farm is applied for.

Agricultural areas.

The more accessible lands near lines of railway, centres of population, and navigable waters, are set apart for agricultural farm selection in areas up to 1,280 acres. In the case of these farms the period of license is five years, during which the selector must fence in the land, or expend an equivalent sum in other substantial improvements. As in the case of grazing farms, as soon as the improvement condition has been complied with a lease is issued; but in this case for a longer term—namely, fifty years from the date of the license, and with a right of purchase. The annual rent may range from three pence per acre upwards (seldom exceeding one shilling) according to the quality and situation of the land, its natural supply of water, &c., and is subject to periodical reassessment, as in the case of grazing farms. The selector must occupy the land continuously, either in person or by agent, for the whole term of the lease. The cost of survey, ranging from about £10 to £12 for a farm of 160 acres to from £20 to £40 for a farm of 1,280 acres, must be borne by the selector.

When an agricultural farm not exceeding 160 acres in area is occupied by the selector in person, the freehold can be secured on extremely liberal terms as regards money payments, five annual payments of six pence per acre being all the purchase money required, and the cost of survey also being payable in like instalments. The conditions attached to the granting of these liberal terms are the expenditure in improvements of a sum equal to ten shillings per acre, and the immediate continuous and *bona-fide* personal residence on the land of the selector for five years. With regard to agricultural farms exceeding 160 acres in area, where the condition of occupation has been performed for five years by the continuous and *bona-fide* personal residence of one lessee, or for ten years by successive lessees, the freehold may be secured on payment of the prescribed purchasing price. If the purchase is made within twelve years from the commencement of the term of the lease, the price will be that mentioned in the proclamation declaring the land available for selection (not to be less than fifteen shillings per acre); if after that period, the price will be increased in proportion to the increase of rent upon re-assessment. The rent reserved under the lease usually amounts to about two-and-a-half per cent. on the purchasing price, and all rent paid during the period of personal residence is counted as part of the purchase money.

Terms for obtaining freeholds.

With regard to village settlement special provision is made by law for the settlement of little communities, so that settlers may live together in townships for mutual convenience on allotments not exceeding one acre in extent, and with farms of eighty acres in close proximity to their residences. The freehold of these farms may be secured generally on the same terms as above stated in regard to agricultural farms not exceeding 160 acres in area, with the additional privileges that residence on an allotment in the township is held equivalent to residence on the farm, and one-fifth of the required improvements may be made on the allotment.

Village Settlement.

Associated agricultural farms.

Two or more selectors of agricultural farms not exceeding 80 acres each may associate for mutual assistance under license from the Land Board. A selector may perform conditions of residence for himself and any other member of the association, providing that at least one selector is in actual occupation for every 160 acres; and if more than 10s. per acre is spent on permanent improvements on any one farm, the surplus may be credited to any other farm or farms in the group. In other respects the conditions are the same as in the case of agricultural farms of 160 acres.

Unconditional selection.

Areas of land are also available for unconditional selection at prices ranging from £1 per acre upwards, payable in twenty annual instalments. As the term implies, no other conditions than the payment of the purchase money are attached to this mode of selection—the disqualifications imposed in the case of agricultural farms being also removed, with the exception of the restriction upon the area allowed to be selected. The cost of survey, on the same scale as for agricultural farms, must be deposited with the first instalment of purchase money at the time of application.

Land Order System.

To approved persons of European extraction, paying their own passages or those of members of their families in full to Queensland from Europe, the United States of America, or any British possession other than the Australasian Colonies, land orders are issued of the value of £20 sterling for each person of 12 years and upwards, and of £10 for each child between 1 and 12 years of age. These land orders are available for ten years from the date of issue, to their full nominal value, for use by the head of the family in payment of the rent of any agricultural or grazing farm, *but not an unconditional selection*, held by him, or they may be used by the members of the family severally—wife and children under 18 years of age, of course excepted—in payment of the rent of farms held by them respectively. Land orders are not transferable, and can only be used by residents in the Colony. They are therefore of no use to anyone who does not settle on the land

and fulfil the conditions as above described. A single land order of the value of £20 will, of course, suffice for the payment of the whole purchase money of a farm of 160 acres under the personal residence conditions above described, and only the survey and deed fees will need to be paid in cash.

LAND LEGISLATION OF SOUTH AUSTRALIA.

Land question theories.

The foundation of the Colony of South Australia was in itself the outcome of an attempt to put into actual practice one of those remarkable theories of colonisation, based upon an apparently unanswerable logic of reasoning, which the logic of hard practical facts is often apt to reverse. The policy of settlement upon which a wealthy Colony was to be created in a few years on the edge of a supposed desert continent was based upon principles enunciated by its author, Edward Gibbon Wakefield, in a pamphlet published in England about the year 1836, in which he advocated a scheme of centralised colonisation, the main idea of which was the sale of the lands in the new possession at a very high price for cash, the amounts thus realised being immediately devoted to the introduction of immigrants, whom the land-owners would immediately employ to reclaim the virgin forest, thus creating wealth and abundance where desolation had previously existed. But although Wakefield had fairly calculated upon the results of the action of man, the action of nature itself had been left out of consideration, and the scheme quickly proved an empty failure and a distressful speculation for the many whom its apparent logic had deluded into investing their means in the lands of the new Colony. Had not the discovery of great mineral resources occurred at an opportune time, the exodus into the eastern Colonies of the immigrants imported or attracted to South Australia would have emptied the country of its population and considerably retarded the progress of a territory not inferior in natural resources to other portions of the Australian continent.

The Wakefield system.

Land legislation of 1872.

Measures were very soon introduced to modify the Wakefield system, but it was only in 1872 that an Act was passed more in conformity with the legislation of neighbouring Colonies, and giving to the poorer classes of the population a chance to settle upon the lands of the Crown under fair conditions.

Land Acts of 1888-90.

The Land Act of 1872, adapted as it was to the needs of the time, gave way to other measures, and the regulations now in force are those of the Crown Lands Act of 1888, administered in conjunction with the Crown Lands Amendment Acts of 1889 and 1890. The Crown Lands Act of 1888 is referred to as the Principal Act. Part I of this Act refers to the power of the Governor to alienate Crown lands, exchange land for public purposes, lease lands to aboriginal natives or their descendants; to dedicate and reserve lands for public purposes, cancel and resume dedications and reserves, constitute divisions of the Colony into hundreds and counties, alter the boundaries of existing divisions, and set aside sites for towns or villages, &c. By clause 9 the grant in fee simple of any land shall not be construed to convey or include any property in any metal, ore or mineral, coal or mineral oils in or upon the land, the same being reserved by the Crown; the Commissioners being allowed to authorise persons at any time to search, mine for, or remove any of the metals and other things reserved.

Metals and minerals reserved.

The leasing of lands.

Part II deals with leases with the right of purchase and perpetual leases. No lands are to be leased unless previously surveyed; the Land Boards are entrusted with the duty of classifying lands, fixing the area of blocks, and the price and annual rent at at which each block may be taken up on lease with right of purchase, and the annual rent at which such block may be taken up on perpetual lease. Applications for such lands may be made in writing to the Commissioner, giving name and address of applicant, forwarding at the same time 20 per cent. of the first year's rent for the block applied for. The applications are referred to the

Applications for lease.

Land Board, who determine upon their acceptance, and may subdivide or alter the boundaries of the block applied for, or reject the application, and generally decide upon all matters, including price or annual rent, connected with such application. Lessees must execute their leases and pay the balance of the first year's assessment and prescribed fees within twenty-eight days after the acceptance of application has been notified and the lease has issued, otherwise forfeiting amounts paid and all rights to lease of the land.

Leases with right of purchase.

Leases with the right of purchase are granted for a term of twenty-one years, with the right of renewal for a further term of twenty-one years, the right of purchase exercisable at any time after the first six years of the term at a price fixed by the Boards, which must not be less than 3s. an acre.

Perpetual leases.

The rent charged for any perpetual leases for the first fourteen years is fixed by the Boards and notified in the *Government Gazette*, and the rent for every subsequent fourteen years is fixed by the Board after revaluation. Rents are payable annually in advance, and every lease contains a reservation to the Crown of all metals, ores, and minerals, gems, coal, timber, and mineral oils, in or upon the leased lands. All lessees under this part of the Act undertake to fulfil the following conditions :—1. To pay rent annually. 2. To pay all taxes and other impositions which may be payable in respect of the leased lands during the lease. 3. To fence the land within the first five years of the term, and keep the fences in repair. 4. To forthwith commence and continue to destroy, and keep the land from, vermin. 5. To keep and maintain all improvements the property of the Crown on the leased land in good order and repair. 6. To insure and keep insured in full all buildings the property of the Crown upon the leased land in the joint names of the Commissioner and lessee. 7. To permit access to the land to every person holding a mining license or mineral lease under Part V of the Act.

Conditions of leasing.

Cash sales of land.

Part III of the Act refers to the sale of lands for cash. Provision is made for the sale of special blocks of land by auction; all Crown Lands within Hundreds which shall have been offered for lease and not taken up may be offered for sale at auction for cash within two years of the date on which they were first offered for lease. Some lands may be sold by auction for cash, and shall not be sold upon credit or by private contract, the Commissioners fixing the upset price of both town and country lots offered to auction, provided always that no country lands shall be sold at less than 5s. per acre.

Pastoral leases.

Part IV refers to pastoral leases, and enacts that all Crown lands not included in any Hundred may be leased for pastoral purposes. Pastoral lands are divided into three classes as follows :—Class 1 includes pastoral lands held under a new lease issued under certain previous Acts, or which having been held under such new lease were held under other leases expiring in the year 1888, or on the 1st January, 1887, and granted in lieu of such new lease. Class 2 includes all pastoral lands which were held by any pastoral lessee on the 14th November, 1884, for any other term of years. Class 3 includes all other pastoral lands.

Renewal of leases.

When any pastoral lease in class 1 shall have expired, the land may be offered for lease at auction in such sized blocks as the Commissioner may determine, every such lease being for a term not exceeding twenty-one years, the annual upset rent payable in advance being fixed by valuation. The lessee shall also pay a deposit of 10 per cent. upon the value of the improvements on the lease, interest at 5 per cent. being allowed for such deposit, which shall be returned at the expiration of the lease, provided the improvements have not been allowed to fall into disrepair, in which case the deposit would be forfeitable wholly or in part. On the expiration of any pastoral lease, or the resumption of any lands included in any pastoral lease granted under the Act, the pastoral lessee shall be paid the value of all substantial water

improvements on the land leased or resumed, and in cases of resumption he shall also be compensated for the loss or the depreciation in the value of his lease. Pastoral lands in class 3 may be offered for lease at auction on the following terms :—The lease to extend over a term of thirty-five years at an annual upset rent of 2s. 6d. per square mile for the first fourteen years of the currency, afterwards during each successive term of seven years, the annual rent shall be fixed by valuation. Under the Crown Lands Amendment Act of 1890 these terms have been altered to forty-two instead of thirty-five years, the revaluation being made every fourteen years instead of seven as above. The lessee to covenant to stock the land before the end of the third year of the term with sheep in the proportion of at least five head, or with cattle in the proportion of at least one head for every square mile leased, and to keep the same so stocked, and before the end of the seventh year to increase the stocking to at least twenty sheep or four head of cattle for the remainder of the term.

Conditions of pastoral leases.

The expenditure of money for the purpose of improving the carrying capacity of the land exempts the lessee from fulfilling the condition with reference to stocking, the expenditure of 30s. before the end of the third year of the term, and that of £3 per square mile before the end of the seventh year wholly discharges the lessees from the covenant in reference to stock. This part of the Act also provides that leases may be granted to *bona-fide* discoverers of pastoral country at the rent of 2s. 6d. per square mile per annum.

Improvements.

Part V deals with leases and licenses to be issued for mining purposes, such leases to be for a term of 99 years, at an annual rent of 1s. per acre, and a further sum of 6d. in the £ on the net profits ; a sum of at least £6 per acre of the area of the lease is to be expended in every two years, with the option of constantly employing one man for every 20 acres of the lease during nine months of the year. Specific mineral licenses may be granted by the Commissioners on payment of a fee of 20s. for permission to

Mining leases and licenses.

Specific mineral licenses.

search for metals and minerals, except gold, upon any specific mineral lands not exceeding 80 acres in extent, subject to the condition of employing at least one man. General mineral licenses for the term of one year are also issued, to search for any metals or minerals, except gold, upon any mineral lands. The leasing of auriferous lands is regulated by the Gold-mining Act of 1885.

General mineral leases.

Part VI refers to leases and licenses for miscellaneous purposes, including leases to discoverers of coal, guano, petroleum, or other substance not being a metal or metalliferous ores; sites for factories and other industrial undertakings, are also regulated under this part of the Act.

Miscellaneous leases.

In Part VII a new feature has been introduced into the land legislation of the Colony, in response to the claims of the working classes. Under this part it is enacted that certain lands of the province may be surveyed in blocks not exceeding 20 acres in area, and may be leased under the conditions affecting leases granted under Part II of this Act, either with the right of purchase or of perpetual lease; no one except a person who gains his livelihood by his own labour, and who has attained the age of 18 years being entitled to any such lease. The rent is payable annually in advance, and the lessee is bound to reside on such land for at least nine months in every year, but personal residence by the wife or any member of the family of every such lessee will be held as a fulfilment of tho residence condition. Under the amended Act of 1890, working men's leases situated within a radius of 10 miles from the Post Office, Adelaide, cannot be taken up with the right of purchase, and the purchase of any such leases taken up under the provisions of the Principal Act cannot be completed.

Workingmen's blocks.

Under the Crown Lands Act Amendment Act of 1889, certain modifications were introduced in the procedure regulating the surrender of existing agreements and leases in exchange for leases under Part II of the Principal Act, and certain regulations were

Land Act of 1889.

enacted to deal with the rabbit pest, and provide for the erection of rabbit-proof fences, granting to District Councils the power to raise loans for this purpose. Provisions were also made for extensive alterations in the disposal of forest lands, and for various other matters relating to the alienation and lease of lands. Section 15 of the Principal Act was amended, so as to provide, among other matters, that no lessee shall hold under lease with a right of purchase at any one time more than 1,000 acres.

THE NORTHERN TERRITORY.

Northern Territory.

The Northern Territory of South Australia includes the whole of the lands situated to the north of the 26th degree of south latitude, bounded by Queensland on the east, Western Australia on the west, and the Ocean on the north. This portion of the Continent is under the administration of a Resident, appointed by the Government of South Australia, and the alienation and occupation of lands within the Territory are conducted under regulations enacted by the South Australian Legislature, in accordance with "The Northern Territory Crown Lands Consolidation Act of 1882."

Alienation.

It is provided that lands may be purchased for cash, without conditions, in blocks not exceeding 1,280 acres, for 12s. 6d. per acre; they may also be bought under the deferred payment system, to the same maximum area, and at the same price, payable in ten years, together with an annual rent of 6d. per acre.

Pastoral occupation.

Leases for pastoral occupation may be issued for a term not exceeding twenty-five years, for blocks up to 400 square miles, the annual rental for the first seven years being 6d. per square mile; while 2s. 6d. per square mile is charged during the balance of the term.

Tropical productions.

In order to encourage the cultivation of tropical produce, such as rice, sugar, coffee, tea, indigo, cotton, tobacco, &c., special

provisions have been enacted. Blocks of from 320 acres to 1,280 acres may be let for such purposes at the rate of 6d. per acre per annum. If, at the expiration of five years, the lessee can prove that he had cultivated one-fifth of his area by the end of the second year of his term, and one-half by the end of the fifth year, he is relieved from all further payment of rent, and the amount already so paid is credited to him towards the purchase of the land in fee.

LAND LEGISLATION OF WESTERN AUSTRALIA.

Early land legislation in Western Australia.

The first regulations referring to land settlement in Western Australia were issued by the Colonial Office in 1829, at the time that Captain James Stirling was appointed Civil Superintendent of the Swan River settlement. The first special grants were made in favour of Captain James Stirling for an area of 100,000 acres near Geographe Bay, and Mr. Thomas Peel for 250,000 acres, on the southern bank of the Swan River and across the Channing to Cockburn Bay, the latter under covenant to introduce at his own cost 400 immigrants into the Colony by a certain date. Regulations were issued to the effect that persons proceeding to the settlement at their own cost, in parties in which the numbers were in the proportion of five females to every six male settlers, were to receive grants in proportion to the capital introduced, at the rate of 40 acres for every £3. Capitalists were also granted land at the rate of 200 acres for every labouring settler introduced at their expense, subject to the cancellation of the grant if the land was not brought under cultivation or reclaimed within twenty-one years. The regulations were amended by others of a similar nature issued on the 20th of July, 1830. In 1832, however, the mode of disposing of the Crown lands by sale came into force, the regulations issued in that year assimilated the system of settlement to that in force in the colonies of New South Wales and Van Diemen's Land. Other alterations were made

System of selling lands.

from time to time, until in 1873, an entirely new system was introduced, which has served as the basis of the regulations at present in force, which were promulgated on the 2nd March, 1887.

Land regulations of 1886.

The new land regulations, which were passed by the Legislative Council in 1886, came into force on the 2nd of March, 1887. For the purposes of the regulations the Colony is divided into six divisions :—The South-west Division, the Gascoyne Division, the North-west Division, the Kimberley Division, the Eucla Division, and the Eastern Division. All town and suburban lands in these divisions may be sold by public auction, at an upset price to be determined by the Governor-in-Council. Any person may apply to the Commissioner to put up for sale by auction any town or suburban lands already surveyed, on depositing 10 per cent. of the upset price, which is returned if he does not become the purchaser; should the purchaser not be the applicant, he must pay 10 per cent. on the fall of the hammer, and complete his purchase within thirty days.

Modes of conditional purchase.

There are four modes of obtaining land by conditional purchase in the South-west Division :—(1) By deferred payment, with residence within agricultural areas; (2) by deferred payment, with residence outside agricultural areas; (3) by deferred payment, without residence; (4) by direct payment without residence.

Agricultural areas.

Agricultural areas of not less than 2,000 acres may be set apart by the Governor-in-Council. The maximum area to be held by any one person is 1,000 acres, and the minimum 100 acres. The price is fixed by the Governor-in-Council at 10s. an acre, payable in twenty yearly instalments of 6d. an acre, or sooner if the occupier choose. Upon the approval of any application, a license is granted for five years. Within six months the licensee must reside on some portion of the land, and he must fence in the land with a good substantial fence during the term of his license. If these conditions are fulfilled, a lease is granted to him for fifteen years. After the lease has expired, provided the fence is in good

order and that improvements have been made equal to the full purchase money, and that the full purchase money has been paid, a Crown grant will be given.

Deferred payment system.

Land may be purchased outside agricultural areas on deferred payment with residence, by free selection, otherwise subject to all the conditions required within agricultural areas, as already stated.

Non-residental purchases.

Under the third mode of purchase, the applicant is subject to all the conditions imposed under No. 1, except residence, but he has to pay double the price—or, £1 per acre,— in twenty yearly instalments of 1s. per acre.

Direct payment system.

By the fourth mode, land to the extent of 1,000 acres, and not less than 100, within an agricultural area, may be applied for at a price (at present 10s. per acre) fixed by the Governor-in-Council. Within three years the land must be fenced, and within five years 5s. per acre must be spent on improvements.

Gardens and orchards.

For garden purposes, small areas of not less than 5 acres nor more than 20 acres (except in special cases), at 20s. per acre, may be purchased on the condition that within three years the land shall be fenced, and one-tenth planted with vines or fruit-trees, or vegetables.

Special areas.

In the Kimberley, North-west, Gascoyne, Eastern, and Eucla Divisions, special areas for purchase may be set apart of not less than 5,000 acres. The total quantity to be held by any one person in a division may not exceed 5,000 acres, nor be less than 100 acres. The price is at present 10s. an acre, payable in ten years, or sooner. Upon approval, a lease will issue for ten years. Within two years the land must be fenced. At the expiration of the lease, the fence being in good order, improvement in addition to the fencing equal to the purchase money having been made, and the purchase money having been paid, a grant from the Crown will be issued.

Pastoral lands are granted on lease, which gives no right to the soil or to the timber, and the lands may be reserved, sold, or otherwise disposed of by the Crown during the lease. The following are the terms of pastoral leases in the several divisions, all leases expire on the 31st December, 1907. The rental named is for every 1,000 acres. South-west.—In blocks of not less than 3,000 acres, at 20s. Gascoyne and Eucla.—In blocks of not less than 20,000 acres; for each of the first seven years, 10s.; for each of the second seven years, 12s. 6d.; for each of the third seven years, 15s. North-west.—In blocks of not less than 20,000 acres. For the first seven years, 10s.; for second seven years, 15s.; for the third seven years, 20s. Eastern.—In blocks of not less than 20,000 acres. For the first seven years, 2s. 6d.; for the second seven years, 5s.; for the third seven years, 7s. 6d. Kimberley.—In blocks of not less than 50,000 acres with frontage, and 20,000 without frontage; for the first seven years, 10s.; for the second seven years, 15s.; for the third seven years, 20s. Any lessee in the Kimberley and Eucla Divisions may have a reduction of one-half the rental due under the Regulations, computed from the 1st day of January, 1887, for the first fourteen years of his lease, if, in the Kimberley Division, within five years of the date of these Regulations, he have in his possession within the Division ten head of sheep, or one head of large stock for every thousand acres leased, or in lieu of stock in the Eucla Division if he have expended £8 per 1,000 acres, in tanks, wells, dams, or boring for water. A penalty of double rental for the remaining portion of the lease is imposed, except in the South-western Division, if the lessee has not within seven years complied with the stocking or improvement clause.

Pastoral leases.

Rent reduced by stocking.

Any person desirous of obtaining a lease of poisoned land may apply to the Commissioner, defining the boundaries and paying one year's rent at the rate of £1 per 1,000 acres, on the condition that the land is fenced in within three years; and if the poison plant is completely eradicated before the lease expires, the lessee will be entitled to a Crown grant.

Land with poison plants.

Mineral lands.

Mining leases, not exceeding 200 acres, nor less than 20 acres, are granted for seven years, at a rental of 5s. per acre per annum, but must be worked within one year. If the holder has erected, or gives security for the erection of suitable machinery to work the mine, he may obtain a Crown grant of not less than 20 acres, at the rate of £3 per acre.

LAND LEGISLATION OF TASMANIA.

Early land regulations.

In the earlier period of the occupation of Tasmania, from 1804 to 1825, the island being administered as a part of New South Wales, its settlement was subject to the regulations affecting the disposal of the Crown domain in that Colony. After its constitution under a separate administration, the regulations issued from the Colonial Office for the settlement of the Crown lands in the mother Colony were made to apply also to Tasmania. New measures were introduced after self-government had been granted to the province, but they became so complicated and cumbersome that the necessity was felt of passing in 1890 an Act consolidating into one comprehensive and general measure the twelve Acts previously in force.

Land Act of 1890.

The business of the Lands and Survey Departments is now transacted by virtue of the Crown Lands Act of 1890, under which, for the convenience of survey operations, the island is divided into thirteen survey districts. Lands of the Crown are divided into two classes, town lands and rural lands. Lands which are known to contain auriferous or other minerals, and such lands as may be necessary for the preservation and growth of timbers, are dealt with under separate sections, and the Governor-in-Council is empowered to reserve such lands as he may think fit for a variety of public purposes.

In the rural division any person of the age of eighteen may select under this Act by private contract at the price and upon the terms set forth hereunder :— Free selection.

One lot of rural lands not exceeding 320 acres nor less than 15 acres.

	£	s.	d.
100 acres at 20s.	100	0	0
Add ⅓ for credit	33	6	8
	133	6	8

Payable as follows :—

	£	s.	d.	£	s.	d.
Cash at time of purchase	3	6	8			
First year	5	0	0			
Second year	5	0	0			
Third year	10	0	0			
And for every one of the eleven successive years to the fourteenth year inclusive at the rate of £10 per annum	110	0	0			
				133	6	8

And so in proportion for any greater or smaller area than 100 acres, but credit will not be given for any sum less than £15. Additional selections may be taken up provided the total area held by one selector does not exceed 220 acres. Selection by agents is not allowed.

The conditions in connection with the credit system are as follow :—The purchaser is to commence improvements at the expiration of one year from the date of contract, and during eight consecutive years shall expend not less than 2s. 6d. per acre per annum, under penalty of forfeiture. Any surplus over 2s. 6d. per acre spent in any year may be set against a deficiency in another year, so that £1 per acre is spent in the eight years. In the event of the full amount of improvements having been made before the expiration of the eight years, the purchaser may pay off any balance due, discount being allowed. Payment of instalments may in certain cases be postponed, but interest must be paid at the rate of 5 per cent. per annum. The time for making the improvements may be extended for two years in certain cases. Should instalments not be paid within sixty days after becoming Conditions of the credit system.

Default of payment.

due the land may be put up to auction, the defaulter having the privilege of redeeming his land up to the time of sale by payment of the amount due with interest and costs. If land sold at auction by reason of default realises over the upset price, the excess is handed to the defaulter. Land purchased on credit is not alienable until paid for, but transfers are allowed. For five years after alienation land is liable to be resumed for mining purposes, compensation being paid to the occupier. All grant-deeds contain a reservation by the Crown of the right to mine for minerals.

Auction sales.

Rural lands not alienated and not exempt from sale may be sold by auction. Town lands are sold only by this means. £1 per acre is the lowest upset price, and agricultural lots must not exceed 320 acres. Lands unsold by auction may be disposed of by private contract, within one year from the time of being offered at auction. No lands may be sold by private contract within 5 miles of Hobart or Launceston.

Private contracts.

Mining areas.

Mining areas may be proclaimed, within which land may be selected or sold by auction, in lots varying with the situation, from 1 to 10 acres if within a mile from a town, up to 100 acres if at a greater distance. In these cases residence for five years is required, in default the land to be forfeited to the Crown. In 1891 an Act was passed to regulate the sale or disposal of Crown lands occupied under residence or business license or under miners' right. Under this Act such land, in areas not exceeding one-quarter acre, may be sold by auction, persons in occupation having a preferential right of private purchase on the upset price fixed by the Land Commissioner. The manner of payment is settled by the Amended Act of 1892, which requires a deposit of one-sixth of the purchase money and the balance to be paid in eleven equal monthly instalments.

Right to search for minerals.

Land selected or bought within a mining area is open to any person to search for gold or other mineral, after notice has been given to the owner or occupier, to whom compensation may be

made for damage done. Persons occupying land in a mining town, under a business license, having made improvements to the value of £50, may purchase one quarter of an acre for £10.

Grazing leases of unoccupied country may be offered by auction, but such runs are liable at any time to be sold or licensed, or occupied for other than pastoral purposes. The rent is fixed by the Commissioner, and the run is put up to auction, the highest bidder receiving a lease for fourteen years. The lessee may cultivate such portion of the land as is necessary for the use of his family and establishment, but not for sale or barter. Should any portion of the run be sold or otherwise disposed of a corresponding reduction may be made in the rent, which is paid half-yearly in advance. A lease is determinable should the rent not be paid within one month of becoming due. In the event of the land being wanted for sale or any public purpose six months' notice must be given to the lessee, and he is to be compensated for permanent improvements. Leases of not more than fourteen years may be granted for various public purposes, such as the erection of wharfs, docks, &c. Portions of a Crown reserve may also be leased for thirty years for manufacturing purposes. Grazing leases.

LAND LEGISLATION OF NEW ZEALAND.

The first establishments in New Zealand were formed upon land obtained from the various native tribes, and the task of distinguishing between the few *bona fide* and the numerous bogus claims to the possession of land thus acquired was the first difficulty which confronted Captain Hobson when, in 1840, he assumed the government of New Zealand. Trading in land with the natives had, from 1815 to 1840, attained to such proportions that the claims to be adjudicated upon covered 45,000,000 acres, the New Zealand Company, of which Mr. Edward Gibbon Wakefield, of South Australian fame, was the managing director, claiming an estate of no less than 20,000,000 acres in area. In Land obtained from the natives.

Inquiry into claims to land.

the year 1840, the Legislature of New South Wales passed a Bill empowering the Governor of that Colony to appoint a Commissioner to examine and report upon all claims to grants of land in New Zealand, all titles, except those allowed by Her Majesty, being declared null and void. This Bill, before receiving the Royal assent, was superseded by an Act of the Local Council, passed in 1841, under which the remaining claims were settled, and new regulations were adopted for the future disposal of the Crown lands. When, later on, the Colony became divided into independent provinces, each district had its own regulations, until, in 1858, an Act was passed by the General Assembly to regulate this question, embodying in one comprehensive measure the regulations under which land could be alienated or demised in the various provinces of the Colony. The Act of 1858 was repealed by that of 1876 and its amendments, the latter having since been repealed to give way to legislation of a more liberal nature. The enactments of 1885, 1887, and 1888 which followed have been superseded by the Lands Act of 1892, under which the Crown lands are now administered. For convenience the Colony is divided into ten land districts, each being under the local direction of a commissioner and a land board.

Classification of Crown Lands.

Crown lands are divided into three classes:—1. Town and village lands, the upset prices of which are respectively not less than £20 and £3 per acre; such lands are sold by auction. 2. Suburban lands, being lands in the vicinity of any town lands, the upset price of which may not be less than £2 per acre; these lands are also sold at auction. 3. Rural lands, being lands not reserved for towns and villages, which are classified into first and second class lands, which may be disposed of at not less than £1 per acre for first class, and 5s. an acre for second class, lands; such lands may be either sold by auction after survey, if of special value, such as those covered with valuable timber, &c., or be declared open for application as hereafter described:—Pastoral lands are included within the term "rural lands," and are disposed of by lease.

Maximum area of selections.

No rural section may be larger than 640 acres in extent if first class land, or 2,000 acres if second class land, whether offered by auction or application; but this limit does not apply to land classified as pastoral. No person can select more than 640 acres of first or 2,000 acres of second class land, including therein any land which he then holds; but this does not apply to pastoral land.

Methods of acquiring Crown lands.

Crown lands may be acquired as follows:—(1) By auction, after survey, in which case one-fifth of the price is paid down at the time of sale, the balance, with the Crown grant fee, within thirty days; (2) by application, after the lands have been notified as open to selection, in which case the applicant fills up a form and makes the declaration and deposit required by the particular system he wishes to select under.

Conditions of selection.

After lands have been notified as open under the optional system, they may be selected for cash, with the condition that such lands shall within seven years be improved to an amount of £1 per acre for first-class land, and 10s. an acre for second-class land. One-fifth of the price is to be paid down at the time of application and the balance within thirty days, if the land is surveyed, or the survey-fee if the land is unsurveyed (the latter going towards the purchase of the land), and the balance within thirty days of notice that survey is completed. A certificate of occupation will issue to the purchaser on final payment, which will be exchanged for a Crown grant so soon as the Board is satisfied that the improvements mentioned above have been completed.

Occupation with right of purchase.

After notification, lands may be selected to be occupied with right of purchase under a license for twenty-five years. At any time subsequent to the first ten years, and after having resided and made the improvements hereafter described, the licensee can, on payment of the upset price of the land, acquire the freehold. If not purchased after the first ten and before the termination of the twenty-five years of the term, the license may be exchanged

for a lease in perpetuity. The rent is 5 per cent. on the cash price of the land; a half-year's rent has to be paid in with the application, if surveyed land, which represents the half-year's rent due in advance on the 1st day of January or July following the selection. If the land is unsurveyed, the cost of survey is to be deposited, which is credited to the selector as so much rent paid in advance, counted from the 1st day of January or July following thirty days' notice of the completion of survey. Residence and improvement of the land are compulsory, as hereafter described.

Leases in perpetuity.

Lands notified under the optional system may be selected on a lease for 999 years (or in perpetuity), subject to the conditions of residence and improvements hereafter described. The rental is 4 per cent. on the cash price of the land. The application must be accompanied by half a year's rent, which, in the case of surveyed lands, represents that due on the 1st day of January or July following the date of selection. In the case of unsurveyed lands, the cost of survey must be deposited, which is credited to the selector as so much rent paid in advance, dating from the 1st day of January or July after thirty days' notice of completion of survey. Two or more persons may make a joint application to hold as tenants in common under either of the two last-named tenures.

Conditions of residence.

Under all systems—excepting cash, or pastoral and small grazing-run leases—residence and improvements are the same. Residence is compulsory (with a few exceptions mentioned in the Act), and must commence on bush or swamp lands within four years, and in open or partly open land within one year, from the date of selection. (1.) On lands occupied with a right of purchase such residence must be continuous for six years on bush or swamp land, and for seven years on open or partly open land; (2.) On lease-in-perpetuity lands residence must be continuous for a term of ten years. The Board has power to dispense with residence in certain cases, such as where the selector is residing on adjacent

lands, or is a youth or unmarried woman living with their parents, and in a few other cases. "Residence" includes the erection of a habitable house to be approved of by the Board.

Improvement conditions.

Improvements are the same for all classes of land—excepting cash, or pastoral and small grazing-run leases—and are as follows:—(1.) Within one year from the date of the license or lease the land must be improved to an amount equal to 10 per cent. of the value of the land; (2.) Within two years the land must be improved to the amount of another 10 per cent.; (3.) Within six years the land must be improved to the value of another 10 per cent., making 30 per cent. in all within the six years; (4.) In addition to the above, the land must be further improved to an amount of £1 an acre for first-class land, and on second-class land to an amount equal to the net price of the land, but not more than 10s. an acre. "Improvements" includes the reclamation from swamps, clearing of bush, cultivation, planting with trees, or hedges, cultivation of gardens, fencing, draining, making roads, wells, water-tanks, water-races, sheep-dips, embankments or protective works, or in any way improving the character or fertility of the soil; or the erection of any building, &c.; and "cultivation" includes the clearing of land for cropping, or clearing and ploughing for laying down with artificial grasses, &c.

Special-settlement Associations.

Under the existing regulations any number of persons, not less than twelve, may apply for a block of land of not less than 1,000 acres or more than 11,000 acres in extent, but the number of members shall be such that there shall be one for every 200 acres in the block, and no one can hold more than 320 acres, except in swamp lands, when the area may be 500 acres. The price of lands within a special settlement is fixed by special valuation, being not less than 10s. an acre; the rental is not less than 4 per cent. on the capital value of the land, and the tenure a lease in perpetuity. Residence, occupation, and improvements are generally the same as already described, and applications have to be made in manner to be prescribed by regulations.

Village Settlements.

Village settlements are disposed of under regulations made from time to time by the Governor, but the main features are as follows:—Such settlements may be divided into,—(1.) Village allotments not exceeding one acre each, and are disposed of either by auction amongst the applicants, or by application as already described, with option of tenure, the cash price being not less than £3 per allotment; (2.) Or are divided into homestead allotments not exceeding 100 acres each, which are leased in perpetuity at a 4-per-cent. rental on a capital value of not less than 10s. per acre. Residence, improvements, and applications are the same as already described. The leases are exempt from liability to be seized or sold for debt or bankruptcy. The Governor is empowered in certain cases, and under regulation, to advance small sums for the purpose of enabling selectors to profitably occupy their allotments.

Small grazing areas.

Small grazing runs are divided into two classes: first class, which do not exceed 5,000 acres; second class, which do not exceed 20,000 acres in area. The rental in both cases is not less than $2\frac{1}{2}$ per cent. on the capital value per acre. Small grazing runs are leased for terms of twenty-one years, with right of renewal for a like term, at a rent of $2\frac{1}{2}$ per cent. on the value of the land. The runs are declared open for selection, and applications and declarations on the forms provided have to be filled in and left at the Lands Office, together with the deposit of one half year's rent, which represents that due on the 1st day of March or September following the selection. A selector of a small grazing run cannot hold more than one such run, or hold any freehold or leasehold land of any kind whatever over 1,000 acres in area, exclusive of the area he applies for under this system. The lease entitles the holder to the grazing rights, and to the cultivation of any part of the run, and to the reservation of 150 acres round his homestead through which no road may be taken; but the runs are subject to the mining laws. Residence is compulsory, if bush or swamp land, within three years; if open, within one year; and must be continuous to the end of the term, but may in a few

Conditions to be fulfilled.

cases be relaxed. Improvements are necessary as follows:—Within the first year, the amount of one year's rent; the second year, another year's rent; and within six years the value of two years' rent; making a sum equal to four years' rental in six years that has to be spent on the run. In addition to these, first class runs must be improved to an amount of 10s. an acre, and second class runs to an amount of 5s. if the runs are under bush. These runs may be divided after three years' compliance with the conditions, among the members of the selector's family.

Pastoral Leases.

Purely pastoral country is let by auction for varying terms not exceeding twenty-one years; but, excepting in extraordinary circumstances, no run can be of a carrying capacity greater than 20,000 sheep, or 4,000 head of cattle. Runs are classified from time to time, by special commissioners, into those which are suitable for carrying more than 5,000 sheep (let as above), and into pastoral-agricultural country, which may be either let as pastoral runs, generally for short terms, or be cut up for settlement in some form. Leases of pastoral-agricultural lands may be resumed at any time after twelve months' notice without compensation. No one can hold more than one run, excepting in case of any one who holds runs of a less carrying capacity than 10,000 sheep, in which case he may hold additional country up to that limit. Runs are offered at auction from time to time, and half a year's rent has to be paid down at the time of sale, which represents that due in advance on the 1st of March or September following the sale, and the purchaser has to make the declaration required by the Act. All leases begin on the 1st of March, and they entitle the holder to the grazing rights, but not to the soil, timber, or minerals; and the lease terminates over any part of the run which may be leased for another purpose, purchased or reserved. The tenant has to prevent the burning of timber or bush, to prevent the growth of gorse, broom or sweet-briar, and to destroy the rabbits on his run. With the consent of the Land Board the interest in a run may be transferred or mortgaged, but power of sale under a mortgage must be exercised within two years. In

Commencement of leases.

case it is determined to again lease any run on expiry of the lease, it must be offered at auction twelve months before the end of the term, and if, on leasing, it shall be purchased by some one other than the previous lessee, valuation for improvements, to be made by an appraiser, shall be paid by the incoming tenant, but to a value not greater than three times the annual rent, excepting in the case of a rabbit-proof fence, which is valued separately. Runs may also be divided with the approval of the Land Board.

AUSTRALASIAN SETTLEMENT.

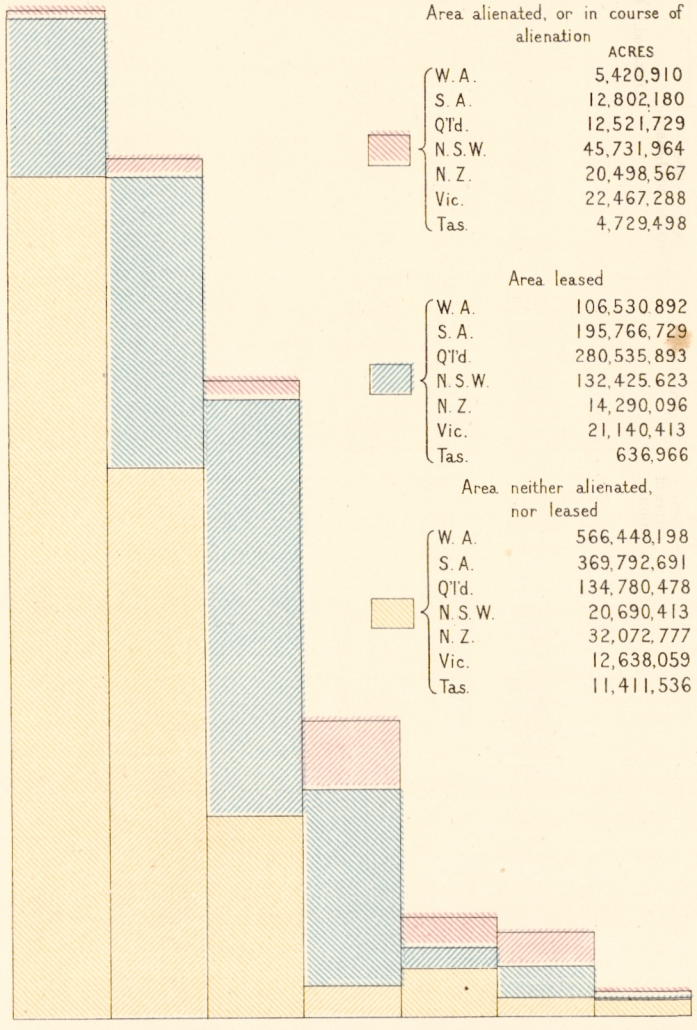
Settlement of the Public Estate.

From the particulars given in the foregoing pages it will have been made abundantly clear that the main object of the land legislation, however variously expressed, has been to secure the settlement of the public estate by an industrious class, who, confining their efforts to areas of moderate extent, would thoroughly develop the resources of the land. But where the character of the country does not favour agricultural occupation or mixed farming, the laws contemplate that the State lands should be leased in blocks of considerable size for pastoral occupation, and it was hoped that, by this form of settlement, vast tracts, which when first opened up seemed ill-adapted even for the sustenance of live stock, might be ultimately made available for industrial settlement. To how small an extent the express determination of the legislators to settle an industrious peasantry on the soil was accomplished will presently be illustrated from the records of several of the provinces, but in regard to pastoral settlement the purpose was fully achieved—large areas, pronounced by even experienced explorers to be an uninhabitable wild have since been occupied by thriving flocks, and every year sees the great Australian desert of the early explorers receding step by step. The following statement shows the area of land alienated by each province, the area leased, and the area neither alienated nor leased. The term "alienated" is used to denote that the figures include lands granted without purchase, the area so disposed of has not been inconsiderable in several provinces :—

Areas alienated or leased.

ALIENATION OF LANDS

AT CLOSE OF 1891.



Area alienated, or in course of alienation

	ACRES
W. A.	5,420,910
S. A.	12,802,180
Q'l'd.	12,521,729
N. S. W.	45,731,964
N. Z.	20,498,567
Vic.	22,467,288
Tas.	4,729,498

Area leased

W. A.	106,530,892
S. A.	195,766,729
Q'l'd.	280,535,893
N. S. W.	132,425,623
N. Z.	14,290,096
Vic.	21,140,413
Tas.	636,966

Area neither alienated, nor leased

W. A.	566,448,198
S. A.	369,792,691
Q'l'd.	134,780,478
N. S. W.	20,690,413
N. Z.	32,072,777
Vic.	12,638,059
Tas.	11,411,536

Printed at the Department of Lands, Sydney, N. S. W. 1893
No of Lithograph D 83 18

Colony.	Area.	Area Alienated, or in process of Alienation.	Area Leased.	Area neither Alienated nor Leased.	Proportion of Area of Colony.		
					Alienated.	Leased.	Neither Alienated nor Leased.
	Acres.	Acres.	Acres.	Acres.	Per cent.	Per cent.	Per cent.
New South Wales	198,848,000	45,731,964	132,425,623	20,690,413	23·0	66·6	10·4
Victoria	56,245,760	22,467,288	21,140,413	12,638,059	39·9	37·6	22·5
Queensland	427,838,100	12,521,729	280,535,893	134,780,478	2·9	65·6	31·5
South Australia	578,361,600	12,802,180	195,766,729	369,792,691	2·2	33·9	63·9
Western Australia	678,400,000	5,420,910	106,530,892	566,448,198	0·8	15·7	83·5
Tasmania	16,778,000	4,729,498	636,966	11,411,536	28·2	3·8	68·0
New Zealand	66,861,440	20,498,567	14,290,096	32,072,777	30·6	21·4	48·0
Australasia...	2,023,332,900	124,172,136	751,326,612	1,147,834,152	6·2	37·1	56·7

Proportion of area under occupation.

The figures in the foregoing table disclose many grounds for congratulation; but of 2,023 million acres which comprise the area of Australasia, 875 millions or 43·3 per cent. is under occupation for productive purposes, and there is every probability that this area will be greatly added to in the near future. New South Wales shows the least area returning no revenue, for out of nearly 200 million acres only 20 millions remain unoccupied, and much of this is represented by land which the State has reserved from occupation that is used for travelling stock or for various public purposes, including lands reserved for future settlement along the track of the great trunk line of railways. The Colony of Tasmania has 68 per cent. of its area unoccupied, the western part of the island being so rugged as to forbid settlement. New Zealand, favoured also with a beneficent climate, has about half its area unutilised, a circumstance entirely due to the mountainous character of its territory. Settlement in Western Australia is only in its initial stage; much of its area is practically unknown, and much of what is known is thought to be little worth settlement. Much the same thing was confidently predicted of western New South Wales and South Australia, though as subsequent events proved the forebodings were untrue. In the territory under the control of the South Australian Government only 36 per cent. is in occupation, but if the Northern territory be excluded the proportion of South Australian property under occupation would be found to be considerably greater. The

Evils of the auction system.

practice of sales by auction without conditions of settlement was a necessary part of the system of land legislation which prevailed in most of the Colonies; but this ready means of raising revenue offered the temptation to the Governments, where land was freely saleable, to obtain revenue in an easy fashion. The result of the system was not long in making itself felt, for pastoralists and others desirous of accumulating large estates were able to take advantage of those sales, and of the ready manner in which transfers of land conditionally purchased could be made, to acquire large holdings, and so the obvious intentions of the Lands Acts

were defeated. Notwithstanding failures in this respect, the Acts have otherwise been successful, as will appear from the following table as well as elsewhere in this volume.

Settlement in New South Wales and New Zealand.

It is unfortunate that detailed information regarding settlement can only be given for two of the Colonies, New South Wales and New Zealand; this will be found in the following table :—

Holdings.	New South Wales.		New Zealand.	
	Number of Holdings.	Area of Holdings.	Number of Holdings.	Area of Holdings.
		Acres.		Acres.
1 to 50 acres	17,077	337,375	20,015	307,183
51 to 300 acres.....	18,961	2,779,385	.....	.....
51 to 320 acres.....	.....	.....	16,380	2,477,333
301 to 1,000 acres	10,528	5,710,306	.....	.....
321 to 1,000 acres	.....	.....	5,123	2,776,207
1,001 to 10,000 acres ..	4,307	11,370,329	1,922	5,193,984
10,001 acres and upwards	677	21,884,299	337	8,642,822
Totals	51,550	42,081,694	43,777	19,397,529

Proportion of owned and leased land.

Out of the 42,084,694 acres set down to New South Wales in the foregoing, 37,388,068 acres are in the actual occupation of the owners, and 4,693,626 acres are held under rent. In New Zealand the proportion of rented land is much greater; the area occupied by the owners is 12,410,242 acres, while the proportion rented is 6,987,287, or 36 per cent. The most reasonable feature of the table is that in New South Wales more than half the alienated land is owned by 677 persons, while in New Zealand 337 own nearly 45 per cent.

SOCIAL CONDITION.

SAVINGS OF THE PEOPLE.

Working man's Paradise.

THE Colonies of Australasia have from very early days been regarded in the light of a working-man's paradise. The high rates of wages which have generally prevailed, and the cheapness with which food could be purchased, have tended to make the position of the wage-earners superior to that occupied by the same class in any other portion of the globe. These advantages have induced a greater degree of comfort, if not luxury, amongst a class in Australasia which in other parts of the world has little of comfort and knows nothing of luxury. A high standard of living is not conducive to thrift, nevertheless the progress of saving has gone on with great rapidity.

Banks.

Some idea both of the celerity and extent of this accumulation may be gathered from the increase of deposits in the Banks carrying on business in the Colonies, and in the following table the deposits in Banks, including Savings Banks, and, in some cases, Building Societies, &c., at four decennial periods are given :—

	1861.	1871.	1881.	1891.
	£	£	£	£
New South Wales.....	5,645,101	7,989,801	23,006,720	42,988,550
Victoria	7,575,406	12,476,677	23,721,348	50,183,551
Queensland.....	334,503	1,647,830	5,633,097	12,154,657
South Australia.....	875,327	2,038,719	6,231,004	9,716,937
Western Australia	*2,487	*15,583	*23,344	1,365,906
Tasmania	†729,085	875,512	2,969,390	4,220,292
New Zealand	905,675	3,789,639	10,618,893	17,497,436
	16,067,584	28,833,761	72,203,796	138,127,329
Per head of population.....	£13	£15	£26	£35

* Savings Banks only. † Banks of issue only.

Increase of Deposits.

From this it may be gathered that the increase of deposits of all classes in Banks between 1861 and 1881 was exactly 100 per cent.,

allowing for the increase of population; while between 1871 and 1891 the deposits per head of population increased by about 133 per cent. When compared with Great Britain, it will be found that the amount of deposits per head of population in Australasia far exceeds that in the older country. In 1861, indeed, the sum per head in Britain exceeded that in Australasia, amounting to £15, against £13 in the Colonies. In 1874 the total in Britain amounted to £25 per head, which ten years later, in 1884, sunk to £23, and in 1890 to £16. In the Colonies there has been no falling off at any period, and in 1888 the total deposits per head far exceeded the highest level ever reached in Great Britain.

Savings Banks.

Turning to the case of the wage-earning classes in the Colonies, it will be found that the Savings Banks, which may be taken to be practically the Bank of these classes, show enormous development since 1861. From the return here given it is evident that the tendency for many years has been to an increase in the number of small depositors. The figures for the last decade show this in a marked degree. In the interval between 1881 and 1891 it appears that the number of depositors in Savings Banks increased from 311,124 to 741,627, or more than 138 per cent. In 1881, however, each depositor had an average of £30 in the Bank, but in 1891 he had only £26. The amount per depositor in decennial periods from 1861 may appear to point to a serious retrogression, declining as it does from £47 to £26, but it is not so, for the large increase in the number of depositors must be taken into consideration.

Habits of thrift.

There is evidence that the less affluent classes of the community are more largely represented in the books of the banks than was formerly the case, and the smaller amount of average deposit seems to show that habits of thrift have in a greater degree permeated the community. It is the total number of depositors and the total amount of deposits, therefore, which indicate the general prosperity of the people. A greater number of depositors than the comparatively small total for 1861 might probably be selected from the number in any of the other years noted in the table whose average deposits would far exceed £47. Queensland

depositors have the largest amounts at their credit, averaging £35 18s. per head, New South Wales coming second with £33 14s. 5d., while those of Western Australia have the least, their average being only £12 11s. 3d. The subjoined table shows the progress of accumulation in the Saving Banks and Post Office Banks of each of the Colonies for the several periods:—

The savings of the people.

	1861.		1871.	
	Depositors.	Amount.	Depositors.	Amount.
		£		£
New South Wales	12,203	615,409	24,379	945,915
Victoria	12,001	582,796	45,819	1,117,761
Queensland	242	12,193	6,769	407,134
South Australia	3,248	131,590	14,270	517,000
Western Australia	†224	2,487	‡1,062	15,583
Tasmania	*	*	8,500	217,413
New Zealand	1,144	22,921	14,275	454,966
	29,062	1,367,396	115,074	3,675,772
Amount per Depositor	£47		£32	

	1881.		1891.	
	Depositors.	Amount.	Depositors.	Amount.
		£		£
New South Wales	72,384	2,698,703	158,426	5,342,135
Victoria	101,829	2,569,438	300,781	5,715,687
Queensland	20,168	944,251	46,259	1,660,753
South Australia	37,742	1,288,450	78,795	2,217,419
Western Australia	3,219	23,344	3,564	46,181
Tasmania	14,728	369,278	26,916	554,417
New Zealand	61,054	1,549,515	126,886	3,406,949
	311,124	9,442,979	741,627	18,943,541
Amount per Depositor	£30		£26	

*Information not available. † 1863, first year of Savings Banks. ‡ 1872.

A full consideration of the economic aspect of banking will be found in a previous chapter, page 363.

INSOLVENCY.

Insolvency.

The view presented in the last section, of the accumulation of wealth, would be incomplete without a glance at the other side of the picture. The Bankruptcy laws of the different Colonies are even more dissimilar than the laws on most other questions of importance; they have also been fluctuating, and the subject of many experiments and amendments. This renders any work of comparison difficult and unsatisfactory. The information here given is imperfect in relation to Western Australia, from which no reliable particulars have been obtainable, and also in reference to New Zealand, the returns from which are incomplete. In other respects the figures give a comparative view of insolvencies at four decennial periods.

Schedules of insolvents not reliable.

It must be pointed out that some caution should be exercised in dealing with figures representing the liabilities and assets of insolvents, because in the present state of the law there is no means of compelling those who seek the relief of the Courts to give an accurate statement of their affairs. The natural tendency is to understate the liabilities, and to over-estimate the assets, so as to make the estate look as favorable as possible. It is very seldom indeed, when a bankrupt estate is finally wound-up, that the creditors find themselves in so satisfactory a position as the schedule as originally filed by the insolvent would lead them to expect:—

Colony.	1861.		1871.		1881.		1891.	
	No.	Liabilities	No.	Liabilities	No.	Liabilities	No.	Liabilities
		£		£		£		£
New South Wales.....	463	589,727	544	325,941	724	379,290	1,189	989,778
Victoria	1,287	1,088,298	631	444,117	620	303,892	807	1,824,595
Queensland.....	24	46,866	73	411,835	153	73,602	300	197,078
South Australia	108	101,140	247	246,713	215	123,629	67	33,100
Tasmania.....	155	173,933	25	62,560	33	†13,770	110	117,575
New Zealand	*	*	737	*	1,406	823,018	605	499,650
	2,037	1,999,964	2,257	1,491,166	3,151	1,717,201	3,078	3,661,776

* No Return. † Returns not complete.

Decrease of Insolvencies generally.

From the above table it would appear that the number of insolvencies was greater in Victoria in 1861 than in any

other year under notice; while in 1881 the extraordinary number of 1,406 was reached in New Zealand, a total greater than any other Colony has produced in any year given in the table; notwithstanding this large number, however, the deficiency between the estimated assets and liabilities was very small, amounting to an average of only £75 per insolvent. It is an important and gratifying feature that, in spite of the great increase of population, and the consequent extension of trade, the number of insolvencies has not increased since 1881, while the amount of the indebtedness of the bankrupts per head is less than at some former periods, and the proportion of assets to liabilities is probably greater. The proportion of insolvents to population in Australasia has largely decreased since 1861, the numbers being, per 10,000 inhabitants:—

1861	16·09	1881	12·87
1871	11·46	1891	8·00

NEWSPAPERS AND LETTERS.

Australasian Newspapers.

There is hardly anything more indicative of the social superiority of a civilized people than the prevalence of correspondence and a large distribution of newspapers. In these respects all the Colonies of Australasia have for many years been remarkable. In proportion to population, it is doubtful whether any country in the world can boast of a larger number or a better class of newspapers than these Colonies. Great advances have been made in this respect since 1871, and the rate of progress, both in number and excellence, has been even more rapid between 1881 and the present time. There is no means of correctly estimating the number of newspapers actually printed and distributed in the Colonies, because the Post Office returns indicate but a small proportion of the actual production. Some idea, however, may be gathered for purposes of comparison with other countries, by noting the distribution of newspapers through the agency of the Post Office. The return for 1891, which comprises all the Colonies, shows that no less than 96,000,000 newspapers passed through the

Post Offices, being an average of 25 to every inhabitant. Allowance has been made, as before, for newspapers entered in both the sending and the receiving Colony.

In the same year there were 183,695,000 letters delivered through the post, being more than 48 letters for every man, woman, and child in Australasia. Allowance has been made in this figure for intercolonial letters counted both in the receiving and despatching colonies. An examination of the statistics of other countries shows that the people of these Colonies stand absolutely at the head of the world's populations in this respect. The inhabitants of Great Britain have nearly but not quite so large a correspondence per head, but the people of no other nation can even approach it. Amount of correspondence.

PARKS, MUSEUMS, &c.

All the Australasian capitals are liberally supplied with parks and recreation grounds. In Sydney and the suburbs there are parks, squares, and public gardens comprising an area of 3,761 acres, including 780 acres, which form the Centennial Park. In addition to these there is the picturesque National Park, of 36,320 acres, situated about 16 miles from the centre of the Metropolis. Melbourne has no less than 5,293 acres of recreation grounds, of which 1,723 acres are within the city boundaries, 2,788 acres in the suburban municipalities, and 782 acres outside those municipalities. Adelaide is surrounded by a broad belt of park lands, and also contains a number of squares within the city boundaries, covering altogether an area of 2,300 acres. Brisbane, Hobart, Perth, and the chief cities of New Zealand are also well provided for in this respect. In all the Colonies large areas of land have been dedicated as public parks. The Botanic Gardens of Sydney, Melbourne, Brisbane, and Adelaide are included in the areas above referred to. Each of these gardens has a special attraction of its own. They are all well kept, and reflect great credit upon the communities to which they belong. Parks and Recreation Grounds. Botanic Gardens.

Museums and Art Galleries.

The various capitals of the Colonies, and also some of the prominent inland towns, are provided with museums for the purposes of instruction as well as recreation, and, in addition, there are in Sydney, Melbourne, Adelaide, and Hobart art galleries, containing excellent collections of paintings and statuary. All these institutions are open to the public free of charge.

PUBLIC CHARITIES.

As shown in previous chapters, wealth in Australasia is widely distributed, and the contrast between rich and poor, which seems so peculiar a phase of old-world civilizations, finds no parallel in these southern lands. That there is poverty in the colonies is undeniable, but no one is Australasia is born to poverty, and that hereditary pauper class, which forms so grave a menace to the freedom of many States, has, therefore, no existence here.

Propertied classes.

It is estimated that in the United Kingdom six persons in every hundred possess property to the amount of £100; whereas in the colonies the proportion is not less than 12·3 per cent. This bare statement shows the vast difference in the conditions of life in Australasia and in the richest country of Europe. No poor rate is levied in the colonies, nor is such needed; for although it may happen that from time to time the assistance of the State is claimed by, and granted to, able-bodied men who are unable to find employment, that assistance takes the form of wages paid for work specially provided by the State to meet an abnormal condition of the labour market.

State assistance to charities.

The chief efforts of the authorities, as regards charity, are directed towards the rescue of the young from criminal companionship and temptation to crime, the support of the aged and infirm, the care of the imbecile or insane, and the subsidising of private charity for the cure of the sick and injured, and the amelioration of want.

Supervision of expenditure.

Even where the Government grants aid for philanthropic purposes, the management of the institutions supervising the expenditure is in private hands; and in addition to State-aided institutions there are numerous private charities, whose efforts for

the relief of those whom penury, sickness, or misfortune has afflicted are beyond all praise. Rescue of the young from crime.

The rescue of the young from crime is attempted in two ways—first, by means of Orphanages, Industrial Schools, and Reformatories, which take care of children who have been abandoned by their natural guardians, or who are likely, from the poverty or incapacity of their parents, to be so neglected as to render them liable to lapse into crime; and, secondly, by sequestering children who have already committed crime, or whose parents or guardians find themselves unable to control them.

It will be noticed that the number of deaths from accident in the Australasian colonies is very great. This arises from the peculiar nature of the occupations in which a large proportion of the adult male population is employed. Although a century has elapsed since settlement commenced in Australasia, its resources are by no means developed, and very many men are at work far away from the home comforts of everyday life, and from home attendance in case of sickness or injury. Hospitals are therefore absolutely essential under the conditions of life in the country districts of the colonies, and they are accordingly found in every important country town. Necessity for hospitals.

The following table shows the total expenditure and the number of persons admitted to the hospitals during the year 1891, as far as information can be obtained. The return for Victoria is made out up to June 30, 1892; the figures for South Australia refer to the Adelaide Hospital only. Expenditure on hospitals.

Colony.	No. of persons admitted during the year.	Expenditure.
		£
New South Wales	17,835	134,055
Victoria	19,695	142,506
Queensland	11,156	93,531
South Australia	2,147	13,700
Western Australia	695	9,775
Tasmania	2,628	16,913
New Zealand	7,489	74,039

Asylums for the Insane.

All the Colonies possess institutions for the care of the insane, which are under Government control. The treatment meted out to the inmates is that dictated by the greatest humanity, and the hospitals are fitted with all the conveniences and appliances which modern science points out as most calculated to mitigate or remove the affliction from which these unfortunate people suffer.

Number of insane.

The following table shows the number of insane patients remaining on 31st December, and expenditure for the year 1891 as far as can be ascertained :—

Colony.	No. of patients.	Expenditure.
		£
New South Wales	3,134	100,112
Victoria	3,769	110,065
Queensland	1,204	33,000
South Australia	815	23,339
Western Australia	145	4,075
Tasmania	357	14,749
New Zealand	1,848	37,189
Australasia	11,272	322,529

Destitute Asylums.

The amounts expended on destitute asylums and benevolent societies cannot be separated from other items of expenditure in some of the Colonies. As far as they can be ascertained they were, for 1891, including both Government aid and private contributions, in New South Wales, £85,202 ; Victoria, £83,815 ; Queensland, £41,166 ; Western Australia, £8,756 ; and Tasmania, £13,007 ; while the number of inmates of the various asylums was, at the end of 1891 :—

Colony.	Inmates.
New South Wales	3,060
Victoria	2,584
Queensland	1,620
South Australia	346
Western Australia	169
Tasmania	700
New Zealand	1,416
Australasia	9,895

A liberal amount of out-door relief is given in all the Australasian Colonies, the expenditure on which is included in the amounts given for destitute asylums and benevolent societies. Out-door Relief.

The expenditure of the Governments of the Australasian Colonies in connection with all forms of relief and in aid of hospitals and other charitable institutions, so far as shown by the imperfect returns, amounted in 1891 to about £559,800 ; adding to this the amount of private subscriptions, &c., the poor and the unfortunate have benefited during the year to the extent of over £1,000,000. This sum, though not excessive in proportion to the population, may yet appear large in view of the general wealth of the Colonies, which should preclude the necessity of so many seeking assistance ; and there is the risk that the charitable institutions may encourage the growth of the pauper element, for while free quarters and free food are so accessible those who are disinclined to work are tempted to live at the public expense. Total expenditure in relief.

LAW AND CRIME.

Proceedings against a person accused of an offence may be initiated, by the laws of all the provinces, either by formal arrest or by summons. Serious offences are not often dealt with by process of summons, though on the contrary, in some of the colonies, it is not unusual even in trivial cases for the offender to be arrested. These circumstances should be taken into consideration when dealing with apprehensions by the police, which are unusually numerous in some of the Australasian Colonies. It is, however, not easy to make a comparison of the practice of the several Colonies in this respect, inasmuch as the records, except in the case of New South Wales, Victoria, and Tasmania, merely show the total number of cases that come before the Magistrates' Courts, without distinguishing the proceedings arising from summons from those wherein the person charged was arrested by the police. Another circumstance, which operates against a clear comparison of the criminal condition of the different Colonies, is the fact that there are considerable divergences Methods of criminal procedure. Cases dealt with by magistrates.

in the criminal codes, as well as in the classification of offences; besides which the laws are administered with greater strictness in some of the provinces than in others. In almost all cases the first hearing of a criminal charge takes place before a Magistrate's Court, whether composed of Stipendiaries, or of unpaid local Justices of the Peace. These Courts have power of jurisdiction as regards minor cases, but in reference to the more serious charges, should a *prima facie* case be made out, they can commit the accused person to take his trial before a higher Court. The following statement shows the number of cases dealt with in the Magistrates' Courts of the several Colonies in the year 1891, classified as far as the nature of the returns furnished will permit:—

Mode of dealing with charges.

Colony.	Offenders against—			Total.
	The Person.	Property.	Good Order, &c.	
New South Wales	6,470	7,243	62,091	75,804
Victoria	3,341	2,792	52,956	59,089
Queensland	2,641	2,471	13,612	18,724
South Australia	143	524	7,438	8,105
Western Australia	376	580	4,049	5,005
Tasmania	524	756	4,893	6,173
New Zealand	1,458	2,437	13,718	17,613
Australasia	14,953	16,803	158,757	190,513

Disposal of cases.

There were, therefore, 190,513 cases altogether dealt with by the Magistrates, in 45,667 of which the persons concerned were discharged, either as guiltless, or because sufficient evidence to establish their guilt was not forthcoming; 140,701 were summarily convicted, and condemned either to fine or imprisonment; while 4,145 were committed to take their trial before a jury. These last-mentioned cases are included principally among the offences enumerated in the first two columns, which comprise what may be properly called crime, such as murder, manslaughter, offences against females, assaults, larceny, burglary, horse and cattle stealing, arson, forgery and other offences against the

currency, conspiracy, &c. The remaining column relates to drunkenness and its concomitant disorderly conduct and foul language, and to breaches of Municipal and other by-laws, and of various Acts of Parliament involving good order more or less.

Serious charges.

The number of serious charges dealt with by Magistrates' Courts in each province is shown in the following table, together with the number of cases in which the accused was committed for trial by a higher Court. The proportion per cent. of serious charges to the mean population is also given :—

Colony.	Serious Charges dealt with.	Committals for Trial.	Percentage of Serious Charges to Mean Population.
New South Wales	13,713	1,582	1·2
Victoria	6,133	1,142	0·5
Queensland	5,112	575	1·3
South Australia	667	171	0·2
Western Australia	956	97	1·8
Tasmania	1,280	98	0·9
New Zealand	3,895	480	0·6
Australasia	31,756	4,145	0·8

Summary Convictions.

The number of convictions by magistrates during 1891 is set forth in the following table. It will be observed that as regards Victoria and South Australia the totals only are given, as the returns published by those Colonies do not show the classification of the offences for which summary punishments were inflicted. The table also gives the proportion borne by the numbers convicted to the total population of each Colony :—

Colony.	Offences against—			Total.	Percentage of Summary Convictions to Population.
	The Person.	Property.	Good Order, &c.		
New South Wales	2,904	3,454	49,353	55,711	4·87
Victoria	.....	.....	.....	42,407	3·70
Queensland	1,483	1,181	11,579	14,243	3·52
South Australia	.....	.....	.....	6,918	2·19
Western Australia	202	362	2,749	3,313	6·42
Tasmania	259	453	4,084	4,760	3·20
New Zealand	744	1,448	11,127	13,349	2·10

Arrests for drunkenness.

More than half the cases heard in the Magistrates' Courts, and nearly half the summary convictions, are for drunkenness. The figures for each province, except Western Australia, for the year 1891, are given in the following statement, which also gives the number of arrests and convictions for this offence to every hundred of the population. The records of Western Australia do not distinguish the arrests and convictions for drunkenness from those for other offences against good order generally. The work of the police in arresting drunken persons seems to be about the same in New South Wales, Queensland, and Victoria, but while convictions seem to be the lot of the person arrested in the two Colonies first named, in Victoria so rigid a practice does not obtain, for 41 out of every 100 arrested escape without being punished by the Bench, many probably preferring to estreat a small amount of bail, rather than face exposure in the Court :—

Colony.	Charges of Drunkenness.	Summary Convictions.	Percentage to Population.	
			Of Apprehensions.	Of Convictions.
New South Wales...	22,075	20,323	1·9	1·8
Victoria	18,057	10,658	1·6	0·9
Queensland..... ...	5,536	5,450	1·4	1·3
South Australia.....	2,987	2,846	0·9	0·9
Tasmania	1,147	1,095	0·8	0·7
New Zealand	5,384	5,246	0·9	0·8
Australasia* ...	55,186	45,618	1·4	1·2

* Western Australia not included.

Arrests no criterion as to extent of drunkenness.

A return showing only the number of arrests for drunkenness is not a safe index as to the abuse of alcoholic liquors, for a great deal depends on the state of the law and the manner in which it is administered, and it is evident that the maintenance of the law intended to preserve public decency will always be less strict in sparsely settled country districts than in larger centres of population where the police are comparatively more numerous, if not in proportion to the population, at least in proportion to the area they have under their supervision. The quantity of intoxicants consumed per head is perhaps a safer index to the habits of

Consumption of liquor per head.

communities living under like conditions; but comparisons so based should not be pushed to extremes, for as it has often been pointed out the larger part of the alcohol which enters into consumption is that consumed by the population who are not drunkards. Information as to the quantity of intoxicants used per inhabitant in each province during 1890 is given below, wines and beers being reduced to their equivalent of proof spirit:—

Colony.	Proof gallons of alcohol per head of population.
New South Wales	2·83
Victoria	3·93
Queensland	2·72
South Australia	2·61
Western Australia	4·15
Tasmania	1·88
New Zealand	1·74
Australasia	2·93

The consumption of various classes of intoxicants in the several Colonies is shown in the chapter on "Food Supply and Cost of Living."

Police in proportion to inhabitants.

The following table shows the number of police, the number of inhabitants to each police constable, and the average area which each constable had under his supervision during the year 1892; it is obvious that in nearly every colony the police force requires strengthening:—

Colony.	Number of Police.			Number of Inhabitants to each Police Constable.			Area under supervision of each Police Constable in Country Districts.
	Metropolitan Area.	Country Districts.	Whole Colony.	Metropolitan Area.	Country Districts.	Whole Colony.	
							Square miles.
New South Wales	577	1,088	1,665	664	688	680	285
Victoria	740	795	1,535	663	817	743	110
Queensland	211	906	1,117	481	322	352	738
South Australia	171	225	396	779	832	809	4,015
Western Australia	35	204	239	241	203	208	5,196
Tasmania	50	258	308	669	438	476	101
New Zealand	42	461	503	791	1,287	1,246	227

Number of cases no indication of social condition.

The record of cases heard before a court of magistrates cannot be regarded as altogether a trustworthy indication of the social progress of Australasia, because it includes many kinds of offences which cannot fairly be classed as criminal, and the number of these has a tendency to increase with the increase of local enactments. The record of committals for trial for the more serious offences coming before the Courts, taken in conjunction with the convictions for crime in the Superior Courts, may be regarded as much more conclusive on the question of the progress of society or the reverse. In some respects even this evidence is misleading, for in the less populous provinces there are no Courts intermediary between the Magistrates and the Supreme Courts, so that many offences which, in New South Wales and Victoria for example, are tried by a jury are in some of the other provinces dealt with by the Magistrates.

Decrease of crime.

The following table shows the proportion of committals by Magistrates, and of convictions in the Superior Courts of all the Colonies, per 1,000 of the population for the last four decennial periods. It will be seen that the committals have decreased from 2·2 in 1861 to 1·1 in 1891, and the convictions by jury during the same period have decreased from 1·3 to 0·6, or a little more than one-half :—

Year.	Per 1,000 of Population.	
	Committals.	Convictions in Superior Courts.
1861	2·2	1·3
1871	1·4	0·8
1881	1·2	0·7
1891	1·1	0·6

Progress of morality.

In noting these facts and comparing results with that obtained in Great Britain during the same period, it must not be forgotten that some of the provinces of Australasia have been compelled gradually to reform a portion of their original population, and that in the case of colonies such as Victoria and Queensland, not

originally peopled in any degree by convicts, the attractions of the gold-fields have drawn within their borders a population by no means free from criminal instincts and antecedents. Viewed in this light the steady progress made cannot but be regarded as exceedingly satisfactory, and the expectation may be not unreasonably entertained that the same improvement will be continued until the ratio of crime to population will compare favourably with that of any part of the world.

Greater ratio of convictions in certain Colonies.

It is peculiar circumstance that, though the people of Australasia are of one blood, and the laws against crime are practically the same in each Colony, some of the Colonies show a far greater ratio of conviction for serious crime than do the others. A crude theory has been put forward that this pre-eminence in crime is due to a convict taint in the Colonies possessing a comparatively high record. The incorrectness of this presumption will be manifest, since Tasmania—a province now in one of the most favourable positions in regard to serious crime—is the one which suffered most from the transportation system. Whatever be the explanation, the fact, however, remains that New South Wales and Western Australia have a higher rate of criminal convictions than the other provinces, and that South Australia shows a marked contrast in its freedom from serious crime. The following table shows the convictions in the Superior Courts of the different Colonies, at decennial periods, from 1861 to 1891 :—

Convictions in Superior Courts.

Colony.	1861.	1871.	1881.	1891.
New South Wales	437	628	1,066	964
Victoria	846	511	332	729
Queensland	24	91	92	232
South Australia	62	91	213	90
Western Australia	35	65	61	44
Tasmania	127	74	51	63
New Zealand	100	162	270	276
Australasia	1,631	1,622	2,085	2,398

Committals by magistrates.

The committals by magistrates, and the convictions in the Superior Courts of each province per 1,000 of population during 1891, were as follows:—

Colony.	Per 1,000 of Population.	
	Committals.	Convictions.
New South Wales	1·4	0·8
Victoria	1·0	0·6
Queensland	1·4	0·6
South Australia	0·5	0·3
Western Australia	1·8	0·9
Tasmania	0·7	0·4
New Zealand	0·8	0·4
Australasia	1·1	0·6

Classification of offences.

A classification of the offences for which the convictions in Superior Courts in 1891 took place is given in the subjoined table :—

Colony.	Offences against			Total.
	The Person.	Property.	Good Order, &c.	
New South Wales	242	587	135	964
Victoria	87	608	34	729
Queensland	59	136	37	232
South Australia	14	60	16	90
Western Australia	17	16	11	44
Tasmania	19	28	16	63
New Zealand	27	163	86	276
Australasia	465	1,598	335	2,398

Convictions in New South Wales.

The very large number of convictions in New South Wales may perhaps be accounted for to some extent by a more rigorous administration of the law than obtains in other provinces ; partly, also, to the fact of there being no law to prevent the influx of criminals, such as exists, and is strictly enforced, in some of the other Colonies.

Capital Punishment.

The punishment of death is very seldom resorted to except in cases of murder, though formerly such was not the case. Thus, in

1861, the executions in the whole of the Colonies amounted to 20; they had fallen to 8 in 1871, to 5 in 1881, and to 2 in 1890. In 1891, however, the number mounted up to 14, of which 7 were in Victoria, and 3 in New South Wales. In South Australia the extreme penalty has been most sparingly inflicted, there having been only 9 in the 21 years which closed with 1891, and until that year there had been none since 1883. The following table shows the number of executions in each province in each decade of the 50 years which ended with 1890, also those which took place in 1891. It will be noticed that the returns are defective so far as Western Australia is concerned :—

Colony.	1841-50.	1851-60.	1861-70.	1871-80.	1881-90.	1891.
New South Wales..	68	37	34	27	23	3
Victoria		47	41	19	13	7
Queensland		1	14	18	15	1
South Australia ...	.....	7	12	6	2	1
Western Australia	.....	.....	.....	.....	.....	1
Tasmania	83	32	15	3	5	1
New Zealand	.....	.....	.....	12	8	.....
Total.....	151	124	116	85	66	14

Number of Prisoners in Gaols.

The returns relating to the prisons of the Colonies are in some cases very incomplete. The prisoners in confinement at any specified time may be divided into those who have been tried and sentenced, those who are awaiting their trial, and debtors. The returns of five of the Colonies allow of this distinction being made. The number and classification of prisoners in confinement on December 31, 1891, were as follows :—

Colony.	Tried and Sentenced.	Awaiting Trial.	Debtors.	Total.
New South Wales	2,489	127	.....	2,616
Victoria	1,715	95	.....	1,810
Queensland.....	579	29	2	610
South Australia.....	267	11	.....	278
New Zealand	496	36	2	534
Total	5,546	298	4	5,848

Prison population.

The returns of Tasmania give the total number of prisoners in confinement on 31st December, 1891, as 170, while Western Australia records a daily average of 285. Taking this figure just mentioned to be correct for 31st December, there would have been a prison population for Australasia of 6,303, or about 1·6 in every 1,000 of the population.

SUICIDES.

Suicides.

Suicides would unfortunately appear to be increasing in number, if not in proportion to population. The following table indicates a portion of the past history and present position of the Colonies in this respect :—

	1861.	1871.	1881.	1891.	Average of 10 years. 1882-1891.
New South Wales	45	30	83	119	97
Victoria	64	90	102	119	112
Queensland	*	8	30	73	52
South Australia	13	11	34	31	28
Western Australia	1	*	4	6	6
Tasmania	7	4	6	9	7
New Zealand	*	*	42	56	54
Total	130	143	301	413	356
Per 100,000 of population	13·0	8·4	10·9	10·6	10·5

*Information not available.

Proportion of suicides.

Compared with the total number of deaths, suicides in the Australasian colonies during the last twenty years (1872–91) show the following proportion per 100,000 :—

Colony.	Per 100,000 Deaths.	Per 100,000 Inhabitants.
New South Wales	649	9·8
Victoria	736	11·5
Queensland	862	14·8
South Australia	620	8·9
Western Australia	676	10·7
Tasmania	373	5·8
New Zealand	806	8·4
Australasia	706	10·3

Tasmania, therefore, stands in a more favourable position than any of the other Colonies, and is the only Colony in which the rate is less than in the United Kingdom, where deaths by suicides average only 7 per 100,000 of population. Compared with the rates of some European countries that of Australasia is however, small, for during the years 1885–87 there were no less than 13·0 suicides in Belgium, 15·9 in Austria, 20·5 in France, and 20·8 in Germany per 100,000 inhabitants. Rate of deaths by suicide.

ILLEGITIMACY.

The following figures show the number of births of illegitimate children and the total births for the years 1871, 1881, and 1891, respectively :— Number of illegitimate births.

	1871.		1881.		1891.	
	Illegitimates.	Total Births.	Illegitimates.	Total Births.	Illegitimates.	Total Births.
New South Wales	782	20,143	1,263	28,993	2,115	39,458
Victoria	747	27,382	1,382	27,145	2,064	38,505
Queensland	156	5,205	345	8,220	684	14,715
South Australia	*	7,082	*	10,708	315	10,737
Western Australia	*	760	*	1,005	*	1,786
Tasmania	*	3,053	*	3,918	185	4,971
New Zealand	*	10,592	534	18,732	638	18,273
	1,685	74,217	3,524	98,721	6,001	128,445
Per cent. of Births	3·19	.....	4·24	.....	4·74	.....

* Information not available.

Illegitimacy also is increasing upon the whole in Australasia, as the table just given shows. The ratio, indeed, compared with the total births is still rather better than in England ; but while the percentage of illegitimate births has steadily declined during the last fifty years in England, it has advanced in Australasia during the period included in the table. The following are the average Increase of illegitimacy.

annual percentages of illegitimate births to total births, calculated over a series of years for each of the Colonies and the United Kingdom :—

	Illegitimate Births per cent.
New South Wales	4·4
Victoria	4·5
Queensland	4·3
South Australia	2·2
Western Australia	4·2
Tasmania	4·2
New Zealand	2·7
England	5·4
Ireland	2·3
Scotland	9·3

DIVORCE.

Divorce.

The question of divorce, which has assumed considerable importance owing to recent legislation on the subject, is one of much interest, the more so because for some years past all the Colonies of Australasia have offered large facilities for divorce in all cases coming within the law. The prevailing opinion has been that such facilities were calculated to increase divorce to an extent that would prove hurtful to public morals. So far as the experience of these Colonies goes, at present the fear would seem to be groundless, but sufficient time has not yet elapsed to enable any definite opinion to be hazarded.

Divorce law in New South Wales.

In New South Wales the chief grounds on which divorce was granted, under the Matrimonial Causes Act of 1873, were adultery since marriage on the part of the wife, and adultery with cruelty on the part of the husband. A measure has, however, passed through both Houses of the Legislature, and has come into force during 1892, which in the main assimilates the law to that of Victoria, where in addition to the grounds mentioned above divorces may be granted on both sides for desertion for over three years, habitual drunkenness, habitual cruelty and neglect, imprisonment for over three years and still in

prison on commuted capital sentence, or under penal servitude for seven years, conviction within one year previously of attempt to murder, or assault with intent to commit grievous bodily harm, assault or cruel beating, and, in the case of the husband, five years frequent convictions for crime, and habitually leaving wife without support. In the colonies of Queensland, South Australia, Western Australia, Tasmania, and New Zealand, divorces are granted principally for adultery on the part of the wife, and adultery coupled with desertion for over two years on the part of the husband.

Number of divorces.

The following table shows the number of decrees for dissolution of marriage, and for judicial separation granted in each Colony in quinquennial periods since 1867, as far as it is possible to procure the information :—

Colony.	1867-70.		1871-75.		1876-80.		1881-85.		1886-90.		1891.	
	Divorces.	Judicial separation.	Divorces.	Judicial separation.	Divorces.	Judicial separation.	Divorces.	Judicial separation.	Divorces.	Judicial separation.	Divorces.	Judicial separation.
New South Wales	...	...	10	...	81	2	98	13	171	29	50	17
Victoria	31	8	33	6	41	2	74	8	124	9	99	...
Queensland	...	...	4	1	14	...	5	2	26	3	5	1
South Australia ...	7	1	22	3	35	2	31	10	23	2	5	...
Western Australia	6	2	...	...	1	1	5	...	8	...	4	...
Tasmania	1	1	9	...	9	...	9	...	15	2	3	...
New Zealand	*...	*...	*...	*...	*...	*...	*...	*...	110	5	20	3
Australasia ...	45	12	78	10	181	7	222	33	477	50	186	21

* Information not available.

Divorce was legalised in New South Wales in 1873, and in Queensland in 1870, so that no figures appear for those colonies in the first quinquennial period. The totals for all except the last two periods are exclusive of New Zealand.

Sufficient data are not to hand to admit of a comparison of divorces and marriages, except on the basis of the number of each

in any year. Taking the figures in the foregoing table, the following shows the number of divorces in each province per 10,000 marriages :—

Colony.	1867-70.	1871-75.	1876-80.	1881-85.	1886-90.	1891.
New South Wales	...	†11·2	32·0	31·1	51·7	79·2
Victoria	20·9	16·0	16·9	24·4	31·1	112·8
Queensland	...	8·0	18·7	6·0	19·0	20·6
South Australia	15·6	33·5	34·6	33·1	24·3	23·6
Western Australia	117·8	...	20·5	44·8	53·5	96·9
Tasmania	7·8	27·4	22·0	18·0	35·4	30·4
New Zealand	*...	*...	*...	*...	63·5	60·4

* Information not available. † 1874 and 1875 only.

In the subjoined table will be found the figures for each of the years 1886–90, from which it will be seen that, taking the colonies as a whole, divorce is decidedly increasing :—

Colony.	1886.		1887.		1888.		1889.		1890.		1891.	
	Divorces.	Judicial Separation.	Divorces.	Judicial Separation.	Divorces.	Judicial Separation.	Divorces.	Judicial Separation.	Divorces.	Judicial Separation.	Divorces.	Judicial Separation.
New South Wales	32	4	25	3	28	5	44	8	42	9	50	17
Victoria	16	...	18	5	28	1	22	3	40	...	99	...
Queensland	1	...	...	1	6	...	11	...	8	2	5	1
South Australia	10	1	3	1	2	...	6	...	2	...	5	...
Western Australia	2	...	...	...	2	...	1	...	3	...	4	...
Tasmania	6	1	...	...	4	...	3	1	2	...	3	...
New Zealand	24	...	16	1	32	...	17	1	21	3	20	3
Australasia	91	6	62	11	102	6	104	13	118	14	186	21
Totals	97		73		108		117		132		207	
Number of marriages	25,079		25,067		27,000		26,810		27,525		27,663	
Divorces and Separations per 10,000 marriages	38·7		29·1		40·0		43·6		48·0		74·8	

The proportion of divorces to 10,000 marriages is much higher in the colonies than in the United Kingdom; but, at the same time, very much lower than in most of the other European

countries or the United States, as will be seen by the following statement :—

Country.	Divorces per 10,000 Marriages.	Country.	Divorces per 10,000 Marriages.
Ireland	2	Hungary	64
Austria	10	Belgium	69
Canada	12	Sweden	73
United Kingdom	18	Holland	91
England	19	Roumania	106
Russia	22	France	127
Italy	24	Germany	152
Scotland	29	Denmark	406
Norway	30	United States	444
Poland	55	Switzerland	468

INSANITY.

Ratio of insanity.

The number of insane persons under official cognizance throughout Australasia on the 31st December, 1891, was 11,090. This represents 2·8 per 1,000 of the population. The rates in the United Kingdom for the same period were—England, 3·0; Scotland, 3·1; and Ireland, 3·5. The amount of insanity in Australasia and in England, compared with their respective populations, is, therefore, about the same, though there appears to be a tendency in the latter country for the rate to increase. The ratios, both in Scotland and Ireland, are higher than in the rest of Great Britain or in Australasia. The following table shows the proportion of lunacy in each of the Colonies at the end of 1891, from which it will appear that the greatest proportion is to be found in Victoria, and the smallest in Tasmania, South Australia, and Western Australia :—

	Insane persons per 1,000 of population.
New South Wales	2·7
Victoria	3·3
Queensland	2·4
South Australia	2·5
Western Australia	2·3
Tasmania	2·1
New Zealand	2·9
Australasia	2·8

The following figures are given by Mulhall for a series of years, in most cases from 1884 to 1888; they show the number of Insane per 1,000 inhabitants in various countries :—

Country.	Number of Insane.	Country.	Number of Insane.
Ireland	3·7	Austria	2·0
United States	3·3	Canada	1·8
England	3·2	Italy	1·7
Scotland	3·2	Belgium and Holland	1·2
Scandinavia	2·9	Russia	1·1
France	2·5	Switzerland	1·1
Germany	2·4	Spain and Portugal	0·7

CONCLUDING REMARKS.

Present condition of Australasia.

The preceding pages contain but a brief sketch, or imperfect outline, of the present condition of the Australasian Colonies; showing, in fact, only the most prominent features, but leaving unnoticed an immense number of details, which, if there were space to introduce them, would add considerably to the impressiveness of the picture. Even the material resources of these vast provinces have not been fully indicated, for nothing has been said of the magnificent timber, unlimited in quantity and unsurpassed for quality, which abounds in every part of Australasia. Nothing has been said, either, of the boundless supplies of fish which are to be obtained in every part of the enormous coast-line of these provinces, which will one day form the source of a large and profitable trade. The political institutions of the Seven Colonies have been described, and a little has been said of the system of local self-government which, in one form or another, pervades Australasia to a greater or less extent; but there has not been room to dilate at any length upon the literary, scientific, and charitable institutions which are to be found in all the principal centres of Australasian population, diffusing the blessings of art, science, and literature on the one hand, and soothing the pains of sickness, and mitigating the sorrows of distress, on the other.

Enough has been said, however, to show how these great Colonies, from the humblest beginnings, have grown and expanded into important provinces, peopled with a race of hardy, enterprising, and industrious colonists, with free institutions such as are enjoyed by few nations in the old world, and without those social and caste impediments which are in older countries so great a hindrance to the march of civilization.

Australasia's future.

It is impossible for a reflective mind to survey the progress made by Australasia in little more than a century without asking the question, "What will the future be?" It scarcely requires the gift of prophecy to find an answer. Here is an enormous territory, with illimitable resources implanted by Nature, without taking into account the possibilities of development by culture and acclimatisation. Here is a people who one hundred years ago found Australasia a desert, but who have already begun to make it blossom like the rose. It is not to be supposed that they will rest content with what they have done, but rather that the progress they have already made will stimulate them to a further advance. They will not heedlessly trample under foot the vast mineral riches they know to underlie the soil; they will not abstain from gathering those plenteous fruits of Nature which are to be had for little more than the labour of stretching out the hand. On the contrary, they will increase in numbers, in wealth, in intelligence, and in power, and the Seven Colonies of Australasia, whether federated into one State, or as separate communities united only by the common bond of kinship, are destined in the near future to play an important part in the world's progress, as much on account of the enterprise of their people as by reason of the magnitude of their territories and the extent of their resources.

INDEX.

Aborigines, Numbers of, 159
Accidents on Railways, 82
Acreage under crop, 178
Actual cost of Government, 335
Adelaide founded, 5
Adjusted Revenue, 334
Ad Valorem Duties, 61
Advances to Municipalities, 343
Affiliated Colleges, 137
Age Groups, Females, 154
  Groups, Males, 152
Ages, Males of Military, 153
  of the People, 151
Aggregate Production of N. S. Wales, 313
Agreement with Home Government, 114
Agricultural areas, 400, 411
  Pursuits, 306
  Production, value of, 175
  Year, 177
Agriculture, 175
  Condition of, 216
  Progress of, 178
  Returns from, 175
Albany founded, 3
Alcohol, Consumption of, 287, 441
Alienation of Public Estate, 424
Alien Races, 160
Alum Stone, 274
American Mail Service, 93
Analysis of Assurance Business, 372
  of Customs Duties, 60
  of Loans Expenditure, 357
  of Works and Services, 359
Anthracite, 272
Antimony, 263
Apatite, 275
Apparent and Real Trade, 37
Area of Great Britain, 8
  of New South Wales, 9
  of New Zealand, 12
  of Queensland, 10
  of South Australia, 10
  of Tasmania, 11
  of Victoria, 9
  of Western Australia, 11
  proportion of, under occupation, 426
  under Barley, 198
Area under Crop compared, 181
  under Crop, percentage of, 181
  under Crops, 178
  under Cultivation, 177
  under Green Fodder, 204
  under Grape Vines, 205
  under Hay, 202
  under Maize, 195
  under minor Crops, 216
  under Oats, 192
  under Orchards, 214
  under Potatoes, 200
  under Sown Grasses, 204
  under Sugar Cane, 209
  under Tobacco, 211
  under Vines, 205
  under Wheat, 185
Areas and Boundaries, 8
Arrests for Drunkenness, 440
Arsenic, 263
Artesian Wells, 218
Art Galleries, 434
Articles produced, Value of, 312
Artificially Sown Grasses, 204
Asbestos, 277
Assets and Liabilities of Bankrupts, 376, 431
Assurance, Life, 371
  Policies, New, 372
  Premiums received, 362
  Prevalence of, 374
Asylums for Destitute and Insane, 436
Attendance at State Schools, 125
  Daily at Schools, 127
Auckland Founded, 6
  Islands, 12
Auction Sales of Land, 390, 395, 416
Australia, Boundaries of, 8
Australian Wines and Beers, 288
Australasian Banks, Deposits in, 365
  Capacity to carry Stock, 231
  Crime, Decrease of, 442
  Defence Forces, 111
  Expenditure on Defence, 118
  Mints, 362
  National Convention, 108
  Naval Squadron, 112

Australasian Naval Station, 112
Newspapers, 89, 432
Ports, Relative Importance of, 32
Production of Copper, 257
Rainfall, 21
Resources, Varied, 28
Savings Banks, 429
Settlement, 424
Shipping Movements, 24
Shipping, Growth of, 22
Stock, Returns from, 234
Tonnage, 22
Trade compared, 53
Trade in Domestic Produce, 55
Trade with United Kingdom, 49
Wealth, 378
Australasia, Varied Resources of, 28
Australasia's Future, 453
Average Ages, 151
Amounts assured, 374
Winter Temperature, 13
Summer Temperature, 14
Avocations of the People, 292
Australian Agricultural Company, 266
Azurite, 256

Bacon and Ham, 241
Balance of Trade and Loan Expenditure, 54
Ballarat, Climate of, 17
Ballast, Tonnage in, 28
Banking Business, 363
Development of, 367
Operations, Extent of, 369
Returns required, 364
Bank Assets and Liabilities, 365
Capital and Reserves, 366
Charges on Loans, 344
Crisis, 367
Banks of Issue, Deposits with, 365
Post Office, 429
Savings, 370, 429
Savings, in other countries, 370
Bankruptcies, 376
Barley, 198
and Malt, 199
Area under, 198
Limited production of, 199
Produced in each Colony, 198
Barrier Ranges, 250
Batman in Port Phillip, 4
Belgium, Trade with, 41
Bendigo, Climate of, 17
Beverage and Food, Cost of, 290
Beginning of Stock-breeding, 221
Birth-places of the People, 163
Births and Deaths, 155
Births, Excess of, over Deaths, 147
Illegitimate, 447
Birth Rate of Australasia, 155
Bismuth, 264
Bitumen, 274
Boards and Trusts, 319
in New South Wales, 320
in New Zealand, 322
in Victoria, 320
Bonus additions, 374
Books carried by Post, 89
in Public Libraries, 135
Boring for Water, 219
Botany Bay, First Fleet in, 2
Botanic Gardens, 433
Bounty Islands, 12
Bourke establishes Government at Port Phillip, 4
Bowen, Lieutenant, 2
Breadwinners, Number of, 309
Breeding of Swine, 241
Bremer, Sir Gordon, 5
British and Australian Shipping, 34
Market for Dairy Produce, 240
Ports, Tonnage of, 33
Reverses in New Zealand, 6
Broken Hill Proprietary Company, 250
Bullion and Coin issued, 363
and Coin reserved, 366
Business done by Telegraphs, 100
Butter and Cheese, Production of, 238
Imports and exports of, 239

Campbell Islands, 12
Capacity to carry Stock, 231
Capital of Banks of other Countries, 369
Punishment, 444
Carnelian, 276
Cases dealt with by Magistrates, 437
Disposal of, 438
Cash Reserves and Liabilities at call, 367
Catseye, 276
Cattle in Australasia, 227
Numbers and Increase of, 228
Value of, 228
Chaffey Brothers, 217
Chalcedony, 276
Charges on Floating Loans, 344
Charities, State Assistance to, 434
Supervision of, 434
Charity, Expenditure on, 437
Chatham Islands, 12
Cheese and Butter, Production of, 238
China, Trade with, 45
Chinese Immigration restricted, 160
Population, 160

Children of School Age, 126
Chrome, 263
Church of England, 138, 143
of Rome, 138, 143
Cigars and Cigarettes, Import of, 213
Cinnabar, 253
Cities and Towns, 161
Claims and Surrenders, Assurance, 373
Classification of Employment, 292
of items of Wealth, 387
of Loan Expenditure, 357
of Primary Workers, 306
of Railway Casualties, 82
Clays, 277
Climate, 13
adapted to the Vine, 705
of Ballarat, 17
of Bendigo, 17
of New South Wales, 14
of New Zealand, 20
of Queensland, 17
of South Australia, 18
of Sydney, 15
of Tasmania, 19
of the Northern Territory, 18
of the Tableland, 15
of the Western Division, 15
of Victoria, 16
of Western Australia, 19
Salubrity of the, 157
Coal, 265
Average Prices of, 271
Consumed in New South Wales, 269
Consumption of, per head, 269
Discovery of, 266
Exported from New South Wales, 269
Exported from New Zealand, 270
Fields of New South Wales, 266
Miners, Number of, 267, 271
Miners, Earnings of, 268
Mines, Registered, 267
in New South Wales, 267
in New Zealand, 271
in Queensland, 271
in Tasmania, 271
in Victoria, 271
in Western Australia, 266
produced, Quantity of, 271
produced per Miner, 268
production, Value of, 271
Seams, Thickness of, 267
Cobalt, 262
Coin and Bullion, Reserves of, 366
in proportion to Liabilities, 367
in circulation, 361
Coinage of Australian Mints, 362
Coins current in Australasia, 361
Coins, Standard Weight of, 361
Colleges and Universities, 136
affiliated to Universities, 137
Collins, Lieut.-Colonel, founds Hobart, 2
abandons Port Phillip, 3
Colonies, Relative Position of, 24
Combined Defence Forces, 112
Commencement of the Pastoral Industry, 221
of Borrowing, 336
of Municipal Government, 315
Commerce, 36
Increase of, 37
Committals and Convictions, 442
Comparative expense of living, 290
decrease of Agriculture, 181
Concluding Remarks, 452
Conditional Leases, 387
Purchases, 387
Condition of Agriculture, 216
Conjugal Condition, 169
Constitution of New South Wales, 2, 102
of Queensland, 7, 105
of New Zealand, 6, 106
of South Australia, 5, 104
of Tasmania, 3, 104
of Victoria, 4, 103
of Western Australia, 3, 106
Construction of Railways, 67
Consumption of Coal per head, 269
of Food, 282
of Food in other Countries, 284
of Intoxicants, 286, 440
of Meat, 283
of Potatoes, 283
of Tea, 283
of Tobacco, 286
of Wheat, 188, 192
Conversion of Loans, 352
Convictions and Committals, 442
Copper, 254
in New South Wales, 254
in New Zealand, 256
in Queensland, 255
in South Australia, 254
in Tasmania, 256
in Victoria, 256
in Western Australia, 256
Miners, Number of, 257
Price of, 257
raised, Value of, 257
Virgin, 256
Corundum, 278
Cost of Floating Loans, 344
of Food compared with Earnings, 291
of Food and Beverage, 290
of Government, 335

Cost of Living in Australasia, 289
of Living in New South Wales, 289
of Railways, 74
of Technical Education, 131
per Child at School, 128
Cows, Dairy, 238
Crime, Decrease of, 442
in Australasia, 438
Criminal Class, 310
Crisis, Financial, 367
Crops, Area under, 178
Proportion of Principal, 183
Cultivation of Tobacco, 212
Currency, 361
Customs Revenue, 59
Duties, Analysis of, 60

Daily Expenditure, 290
Movements of Tonnage, 24
School Attendance, 125, 127
Dairy Cows, and Milk produced, 238
Farming, Progress of, 237, 240
Industry, 240
Produce, British Market for, 241
Produce, Import and Export of, 239
Produce, Value of, 238
Dates of Redemption, 341
Date of First Settlement, 1
Death Rate of Australasia, 156
Rate of other Countries, 157
Rate compared, 156
Deaths by Suicide, 446
Debt for Defence Purposes, 119
Increase of, 337
Public, 335
per Inhabitant, 337
Decline of Tobacco Industry, 211
of Customs Revenue, 60
of Land Revenue, 330
Decrease of Crime, 442
Deep Gold-mines in Victoria, 247
Defence, 110
Commission, 119
Forces, Combined, 112
Purposes, Debt for, 119
Degrees conferred by Universities, 137
Density of Population, 148
of the World's Population, 148
Denominational Schools, 120
Denominations, State of, 140
Dependents, 309
Deposits in Banks of other Countries, 369
in Savings Banks, 370, 430
Total, in Australasian Banks, 428
with Banks of Issue, 365
Depreciation of Colonial Securities, 353
Derwent River, Settlement at, 2
Description of Industrial Classes, 292
Destitute Asylums, 436
Details of Expenditure, 289
Development of Banking, 369
Diagrams—
Alienation of Lands, 425
Area under Crop, 179
Birth and Death Rates, 155
Domestic Exports, 56
Increase of Population, 145
Letters carried, 89
Live Stock—Cattle, 228
Live Stock—Sheep, 226
Miles of Railway, 75
Production of Wool, 235
Shipping, 22
Total Value of Minerals, 281
Diamonds, 264, 277
Direct and Indirect Taxation, 327
Direct Wool Trade with Europe, 41
Discovery of Coal, 266
of Gold, 243
Disparity of Tariffs, 62
Disposal of Surplus Sheep, 236
Distribution of Production, 312
of Property, 382
of Taxation, 61
of Tonnage and Trade, 65
of Wealth, 381
Diversity of Railway Gauge, 70
of Land Legislation, 384
Division of Workers, 292
Divorce, 448
Laws relating to, 448
Domestic Produce, Exports of, 55
Produce of other countries, 57
Dredge, Gun-boats, 116
Drunkenness, Arrests for, 440
Duties, Equivalent *ad valorem*, 61
on Australasian Goods, 61
on Produce for Home Consumption, 61

Early Settlement in Australasia, 145
Earthy Minerals, 275
Earnings and Expenditure, 291
of Coal-miners, 268
of Gold-miners, 246
of Railways, 75
Education, 120
Cost of, per child, 128
in New South Wales, 121
in New Zealand, 124
in Queensland, 123
in South Australia, 123
in Tasmania, 124

Education in Victoria, 122
in Western Australia, 123
of Maoris, 125
of the Rising Generation, 133
Primary, 120
Progress of, 120
shown by Marriage Registers, 133
shown by Postal Returns, 134
Effect of Gold Discovery, 149
Eggs, production of, 242
Elaterite, 274
Elective principle introduced, 101
Emeralds, 278
Employment and Production, 292
Endurance of Colonial Horses, 229
Endowment of Universities, 136
Enrolment of Scholars, 126, 129
per cent., 127
Epsom Salts, 274
Essington, Port, 5
Estates, Average Value of, 382
Europe, Trade with, 40
Wine Trade with, 207
Wool exported to, 63
Excellence of Native Grasses, 229
Excess of Births over Deaths, 157
of Exports of Gold, 59
of Immigrants, 147
of Imports, 54
Expansion of Trade, 47
Expenditure and Earnings, 291
and Revenue, 324
Comparative, 290
Daily, 290
Details of, 289, 332
from Loans, 55, 358
from Loans for Defence, 118
in other Countries, 290
on Fortifications, 118
on Railways, 75
on Primary Education, 128
of each Colony, 332
of New South Wales, Large, 331
of the People, 289
per head, 289, 332, 359, 361
Public, 331
Total, 332
Expense of Floating Loans, 344
Export and Import of Gold, 58
of Barley, 199
of Coal from New South Wales, 269
of Coal from New Zealand, 270
of Dairy Produce, 239
of Domestic Produce, 56
of Frozen and Preserved Meat, 237
of Fruit, 214
of Greasy Wool, 234
Export of Hay, 203
of Kerosene Shale, 273
of Maize, 197
of Oats, 194
of Potatoes, 201
of Wheat, 187
of Wine, 207
of Wool from each Colony, 42, 234
of Wool to Principal Countries, 42
Exports and Imports, 38, 48
Compared, 56
to outside Countries, 47
of Domestic Produce, 56
of Gold, Excess of, 59
of Pastoral Produce, 58
Extent of Banking Operations, 369
External Trade, 37, 52
Tonnage, 24
Extra-tropical Australia, 13
Extreme Heat of Northern Australia, 14

Fawkner, Lands at Port Phillip, 4
Federation, 107
Federal Conference, 108
Constitution, 109
Council, 108
Fees at Universities, 136
Females of Reproductive Ages, 151
Finance, 324
Financial Depression, 383
First Fleet in Port Jackson, 2
Legislative Council, 101
Loans raised, 336
Mail Steamer, 87
Parliament, 102
Post Office and Postal Act, 86
Speaker in Parliament, 102
Fire Clays, 162
Fiscal Year, 325
Floating Loans, Expense of, 344
Flocks and Herds of the World, 231
Food and Beverage, Cost of, 290
Consumption of, 282
Consumption of, in other Countries, 284
consumed in excess of requirements, 285
Supply and Cost of Living, 282
Thermo-dynamic effects of, 285
Foreign Countries, Trade with, 40
demand for Horses, 230
Steam Tonnage, 32
Foreigners, Naturalization of, 161
in Australasia, 166
Fortifications, 118
Franking by Post, 86

Freemantle, Captain, at Swan River, 3
Free Selection before Survey, 386
Selection in Victoria, 391.
French Mail Steamers, 88, 93
Frozen and Preserved Meats, 236
Fruit, Cultivation of, 214
Exportation of, 214
Value of, 215
Funded and unfunded Loan Issues, 344
Loans issued in 1892-3, 350
Future of Australasia, 453
Prospects of the, 333

Gardens and Orchards, 214
Garnets, 279
Gate Pah Disaster, 6
Gauge of Railways, 69
Gems and Gemstones, 277
General Assembly, New Zealand, 6
Education, 132
Revenue and Expenditure, 324
German Mail Steamers, 88, 93
Goethite, 261
Gold, 243
at Mount Morgan, 245
at the Australasian Mints, 362
Australasian, Total value of, 244
Coin issued by Mints, 363
discovery in Victoria, 245
Early discovery of, 243
exported by producers, 58
Import and export of, 58
in Western Australia, 244
issued from the Mints, 363
Mines in Victoria, Deep, 247
Miners, Number of, 246
Miners, Earnings of, 246
Mining Machinery, Value of, 247
Mining, Progress of, 245
Minted in 1892, 362
Nuggets, 248
Production of, since 1851, 244
quantity won per miner, 246
raised, Value of, 244
received for Coinage, 362
Weight and value of, 245
won per miner, 246
Yield of, from quartz, 246
Goods Traffic on Railways, 81
Grapes, Production of, 206
Graphite, 264
Grasses artificially sown, 204
Greasy Wool, Export of, 234
Green Forage, 204
Growth of Australasian shipping, 22
Public Debt, 336
Gypsum, 275

Habits of thrift, 429
Habitations, 173
Ham and Bacon, 241
Hands engaged in Mining, 308
engaged in Manufactures, 303
Hau-hau Heresy, 6
Hay, 202
Area under, 202
Imports and Exports of, 203
Production of, 202
Hematite, 261
Henty, Messrs., in Port Phillip, 4
Hessite, 249
History of Gold Discovery, 243
of Railway Construction, 67
of Vine-growing, 205
Hindmarsh, first Governor S. Australia, 5
Hobart founded, 3
Hobson, Captain, at Bay of Islands, 6
Holdings, Number of, 427
Homestead Leases, 388
Honey and Eggs, 242
Honi Heki's Insurrection, 6
Horses, Endurance of Australian, 229
in Australasia, 229
Little foreign demand for, 230
Numbers of, 230
Value of, 231
Horse-power of Plant, 303
Hospitals, 435
Hume and Hovell, Explorers, 4
Hunter River Water Supply, 320

Illawarra Harbour and Land Corporation, 320
Illegitimate Births, 447
Illiteracy, Decrease of, 132
Immigrants, Excess of, 147, 150
Imperial Naval Station, 112
War Vessels on Station, 113
Import and Export of Gold, 58
Duties, 62
of Barley, 199
of Dairy Produce, 239
of Fruit, 215
of Hay, 203
of Kerosene, 273
of Maize, 197
of Oats, 194
of Potatoes, 201
of Sugar, 210
of Tobacco and Cigars, 213
of Wheat, 187
Imports and Exports, 38, 48
Excess of, 54
for Home Consumption, 61

Imports from Outside Countries, 46
into United Kingdom, 49
of Intoxicants, 61
Value of, 52
Improvement of Steamers, 39
Income, Public, 325
Incorporated Areas, 316
Increased capacity of Vessels, 24
Production of Silver, 251
Increase of Area under Crop, 180
of Assurance Business, 373
of Commerce, 37
of Debt, 337
of Live Stock, 221
of Population from Immigration, 147, 150
of Revenue, 327
of School Attendance, 127
of Tonnage inwards, 25
of Wealth,
Indebtedness before Responsible Government, 336
Growth of, 336
per Inhabitant, 337
Individual expenditure, 290
Infirmity and Sickness, 172
Intercolonial Shipping, 31
Tonnage inward, 29
Tonnage outward, 30
Trade, 50
Insanity, 451
Insane Asylums, 436
Inscribed Stock, 346
Insolvency, 376, 431
Decrease of, 431
Insolvent Estates, 376
Schedules not reliable, 377
Liabilities and Assets, 376, 431
Instruction, Technical, 139
Public, 120
Interest actually paid, 351
on Loans, 338
on Public Debt, 333
paid to Investors, 352, 354
Intoxicants, Consumption of, 286
Imports of, 61
Introduction of Railways, 67
Investment Societies, 371
Investors, Net Interest paid to, 352
Iridosmine, 249
Iron, 260
Extensive Deposits of, 261
Works at Taranaki, 261
Irrigation at Mildura, 217
at Mulgoa and Renmark, 218
Necessity for, 217
Islands, Trade with, 39

Kangaroo Island, 4
Kaolin, 277
Kauri Gum, 274
Kermadic Islands, 12
Kerosene and Shale, 272
Kerosene Oil, Import of, 273

Labour Settlement Act, 390
Land Legislation in New South Wales, 384
in New Zealand, 417
in Northern Territory, 409
in Queensland, 398
in South Australia, 403
in Tasmania, 414
in Victoria, 391
in Western Australia, 410
Order System, 402
Revenue, 329
Lands Alienated and Leased, 425
Large nuggets, 248
Expenditure of New South Wales, 331
Redemptions in some years, 341
Lard, 241
Law relating to Assurance, 371
Lead, 253
Legislative Council, First, 101
Length of Telegraph Lines, 99
Letters and Newspapers by Post, 135
per inhabitant, 135
Liabilities and Assets, Insolvents', 376
Libraries, Public, 135
Life Assurance, 371
Assurance, Prevalence of, 374
Light, Colonel, arrives South Australia, 4
Light Mortality in Australasia, 156
Lignite or Brown Coal, 265
Limestone, 275
Limited Cultivation of Barley, 199
Limit of Stock-production not reached, 232
Limonite, 261
Lithographic Stone, 275
Live Stock, Increase of, 222
Numbers of, 222
per Head of Population, 222
Returns from, 234
Living, Cost of, 282
Loans, 347
Expenditure, and Balance of Trade, 55
Expenditure from, 55, 118, 356
Expenditure of each Colony, 358
Expense of floating, 344
Improvident Expenditure from, 356

Loans, Interest on, 338
Issues, 344
Redeemable at fixed dates, 340
when repayable, 342
Local and General Expenditure, 360
Expenditure per inhabitant, 361
Government, 315
Consumption of Coal, 269
Lockyer, Major, lands at Albany, 3
Lonsdale, Captain, arrives at Port Phillip, 4
London, the market for Loans, 344
Loss on Services, 335

Macarthur, Capt., introduces Merinos, 224
Magnetite, 261
Magistrates' Courts, 437
Mail Service, *via* Panama, 87
Service, *via* San Francisco, 88, 92
Service, *via* Suez, 88, 92
Maize, 195
Area under, 195
Average Production of, 195
Imports and Exports of, 197
Production of, 195
Malachite, 256
Males of Military Ages, 143
Mallee Lands, 392, 396
Malt, 199
Manganese, 262
Maoris, Numbers of, 159
Maori Schools, 125
War in New Zealand, 6
Marble, 275
Manufactures, Hands engaged in, 303
Manufacturing Plant, 304
Marine Forces, 112
Boards in Tasmania, 321
Marriage Rate of Australasia, 158
Marriage, 158
Registers Signed with Marks, 133
Married, Numbers of, 170
Marvellous increase of Wealth, 378
Meat, Consumption of, 283
Consumption of, in Other Countries, 284
Exported, 237
Frozen and Preserved, 236
Meerschaum, 276
Melbourne Board of Works, 320
Harbour Trust, 320
Married, 4
Tramway Trust, 320
Mercury, 253
Merinos introduced, 224
Metallic Minerals, 253
Metallic Reserves of Banks, 366
Meteorological Conditions, 21
Methodists, 144
Methods of Criminal Procedure, 437
of Taxation, 328
Metropolitan Fire Brigades Board, 320
Mica, 276
Military, Ages, Males of, 153
Forces of Australasia, 112
Strength of Australasia, 111
Defence Commission, 119
Milk, Produced, 238
Mildura, Irrigation, 217
Mineral Fuel, 265
Resources, 243
Wealth of Australasia, 279
Minerals Produced per head, 279
Total Value of, 279
Mining, Hands Engaged in, 308
Machinery, Value of, 247
Minor Crops, 216
Misleading form of Accounts, 334
Molybdenum, 260
Money Order Business, 375
Morality, Progress of, 442
Mortality, Light in Australasia, 156
Mount Morgan, Gold at, 248
Movements of Shipping, 24
of Gold, 58
Mulgoa, Irrigation at, 218
Municipal authority to borrow, 343
Borrowings, 343
Institutions, 315
Loans, 319
Rates, how assessed, 316
Revenue and Expenditure, 317
Revenue per head, 317
Sinking Funds, 343
Museums, 433

Narcotics, Imports of, 61
Duties on, 61
Natron, 274
Nationality of Tonnage, 34
Native Grasses, Excellence of, 229
Races, 159
Natives of United Kingdom, 166
Naturalisation, 161
Naval Defence, 110
Station, Australasian, 112
Navy, Imperial, in Australasia, 412
Contribution to Support of, 114
of Queensland, 117
of Victoria, 116
Necessity for Hospitals, 435
Need for Local Government, 324

Net value of Production, 304
Newspaper Postage, 94
Newspapers, Australasian, 134
Carried by Post, 135, 432
per Inhabitant, 135, 433
New Assurance Policies, 372
New Guinea, 10
New Munster, 12
New South Wales,
Aggregate Production of, 175
Boundaries of, 9
Climate of, 14
Constitution of, 2
Crops, Value of, 175
Schools in, 122
Sewerage Works, 318
Water-works, 318
Wool Exported *via* Melbourne, 230
New Ulster, 12
New Zealand, Boundaries of, 11
Climate of, 20
Constition of, 6
Education in, 124
Founded, 5
Gold fever in, 244
History of, 6
High yield of Oats in, 193
Land Company, 5
Native Wars, 6
Naval Defence, 117
Crops, Value of, 175
Nickel, 262
Noble Metals, 243
Northern Australia, Heat of, 14
Northern Territory annexed, 5
Climate of, 18
Land Legislation of, 409
North Island, 12
Nuggets, Large, 248
Number of Cattle in Australasia, 228
of Horses in Australasia, 230
of Rooms, 174
of Stock at different periods, 222
of Stock per Inhabitant, 222
of State Schools, 125
of Passengers carried per train, 80
of Prisoners in Gaols, 445
of Private Schools, 129
of Police, 441

Oats, 192
Area under, 192
Average Produce of, 193
High yield of, in New Zealand, 193
Import and Export of, 194
Production of, 193
Oats, Yield of, in Principal Countries, 193
Objection to Standing Army, 110
Ocean Mail Services, 87, 92
Oil Shale in New Zealand, 273
Omaru Stone, 275
Onyx, 276
Opals, 276
Orchards, 214
Ordinary Coal, 265
Outstanding Loans, 338
Ozokerite, 274

Panama Mail Service, 87
Parliaments, 101
Parliament of New South Wales, 101
of New Zealand, 105
of Queensland, 105
of South Australia, 104
of Tasmania, 104
of Victoria, 103
of Western Australia, 106
Parliamentary Committees on Railways, 67
Members Remuneration, 107
Parks and Recreation Grounds, 433
Parcels carried by Post, 89, 95
Partial Deterioration of Stock, 229
Passenger Traffic on Railways, 81
Passengers, Accidents to, 82
Pastoral Industry, Commencement of, 221
Industry, Importance of, 58
Leases, 385, 389, 393, 406, 409, 413, 417, 423
Pastoral Property, Value of, 233
Resources, 221
Percentage of Silver to each Colony, 253
of Interest on Debt,
Perpetual Leases, 405, 420
Perth founded, 3
Persons employed under Government, 293
Persons engaged in—
Agricultural Pursuits, 306
Arts, 296, 302
Building, 305
Defence, 293
Disposal of Refuse, 305
Domestic Duties, 294
Finance, 295
Fisheries, 307
Forestry, 307
Manufacturing Food Products, 302
Manufacturing Textiles, 302
Mechanical Productions, 296
Metals and Minerals, 303
Mining, 308
Ministering to Religion, 293

Persons engaged in—
Miscellaneous Trades, 299
Pastoral Pursuits, 307
Professions, 294
Property, 295
Sale of Animals, 297
Sale of Animal Products, 297
Sale of Food, 297
Sale of Fuel, 298
Sale of Metals, 298
Sale of Raw Materials, 297
Sale of Textiles, 297, 302
Sale of Vegetable Products, 297
Speculative Pursuits, 298
Storage, 299
Trade, 295
Transit, 299
Transport, 300
Treating Animal or Vegetable Substances, 302
Various Industries, 300
Water Conservancy, 307
Persons of Independent Means, 308
of no specified calling, 311
Petzite, 134
People, Ages of the, 150
Earnings of the, 290
Expenditure of the, 289
Persons naturalised, 161
Phillip, Capt. Arthur, 2
Platinum, 249
Plumbago, 264
Police, Numbers of, 441
Policies (Assurance) issued, 372
Political Divisions, 1
Polynesians, 61
Popularity of Inscribed Stock, 346
Population, 145
Aboriginal, 159
Chinese, 160
Density of, 148
Growth of, 145
Germany, 165
Increase of, from Immigration, 147
Increase of, in each Colony, 147
Land Revenue per head of, 330
Maori, 159
Naturalization, 161
of each Colony, 146
of Other Countries, 148
of Principal Towns, 162
of Towns and Cities, 161
Rates of Increase in, 146
Scandinavian, 168
Portland Bay, Settlement at, 4
Port Darwin founded, 5
Port Jackson, First Fleet in, 2
Port Nicholson founded, 6
Port Philip District neglected, 4
Population of, at Separation, 149
Rapid Progress of, 146
Settlement of, 3
Ports, Relative importance of, 32
Postage Rates, Early, 86
Postal Act, First, 86
Sir Richard Bourke's, 87
Postal Business in 1891, 89
Conference, 95
Union, 94
Facilities in Australasia, 91
Notes, 375
Service, 86
Post Office Banks, 430
First, 86
Potatoes, 200
Area under, 200
Imports and Exports of, 201
Production of, 200
Poultry, Value of, 242
Powers of Corporate Bodies, 315
Premiums (Assurance) received, 372
Presbyterians, 138, 144
Present State of Denominations, 142
Preserved and Frozen Meats, 236
Prevalence of Life Assurance, 374
Price of Colonial Stock, 354
of Greasy Wool, 235
Primary Education, 120
Industries of Australasia, 312
Industries of the World, 313
Production, 305, 312
Principal Crops, Proportion of, 176
Countries, Wealth of, 379
Ports, Tonnage at, 32
Ports, Trade of, 33, 64
Prison Population, 446
Private Schools, 129
and Denominational Schools, 127
Wealth, 378
Production compared with Area, 314
General, 292
of Antimony, 263
of Barley, 198
of Butter and Cheese, 238
of Coal, 271
of Copper, 254
of each Colony, 312
of Gold since 1851, 244
of Hay, 202
of Maize, 195
of New South Wales, 313
of Oats, 193
of Potatoes, 200
of Silver, 251

Production of Stock, Limit not reached, 232
of Sugar, 210
of Tobacco, 211
of Tin, 260
of Wheat, 185
of Wine and Grapes, 206
per Inhabitant, 312
Value of, 177, 304
Products of the Swine, 241
Producing Colonies Largest Exporters, 58
Progress of Dairy-farming, 237, 240
of Education, 120
of Gold-mining, 245
of Morality, 442
of Railway Construction, 72
of Sheep-breeding, 226
of Sugar-growing, 209
of Vine Cultivation, 205
of Wheat-growing, 185
Property, Distribution of, 381
Propertied Classes, 434
Proportion of area under crop, 182
of area under occupation, 426
of Gold raised by each Colony, 244
of Goods Traffic, 81
of Horses in each Colony, 230
of Native-born, 165
of owned and leased Land, 427
of Railways, 70
of Religious Bodies, 142
of Sheep in each Colony, 227
of Suicides, 446
of Swine in each Colony, 241
Prospects of the Future, 383
Provincial Councils, New Zealand, 6
Public Charities, 434
Debt, 335
Debt, Interest on, 333
Debt per head, 337
Expenditure, 331
Income, 325
Instruction, 122
Libraries, 135
Revenue and Expenditure, 324
Pyrites, 262

Quantity of Sugar produced, 210
of Gold per Miner, 246
of Meats exported, 237
of Food consumed, 282
Quartz, 276
Yield of Gold from, 246
Queensland affected by Gold Discovery, 149
Boundaries of, 10
Climate of, 17
Queensland, Constitution of, 7
Education in, 123
Export of Sugar from, 210
Founded, 7
Naval Defence, 117
Rainfall of, 18
Temperature of, 17
Value of Crops of, 175
Water Supply Works, 321

Railways, 66
Accidents on, 82
History of, 67
Construction, Progress of, 72
Cost of Construction, 75
Earnings of, 76
Earnings of, in other countries, 80
Expenditure on, 75
Expenses and Revenue compared, 76
Gauge of, 69
Goods Traffic on, 81
Government, 74
Length of, under construction, 72
in New South Wales, 13
in the other Colonies, 73
Open for Traffic, 68
Passengers carried by, 80
Private, 74
Profit and Loss on, 77
Proportion of, to area, 70
Proportion of, in other countries, 71
Proportion of, to population, 70
Receipts from Traffic on, 75
Returns compared, 79
Returns per mile open, 78
Returns per train mile, 78
Revenue and Expenses of, 75
Rolling Stock on, 81
Through difficult country, 79
Traffic, Receipts from, 75
Working Expenses of, 75
Rainfall, Australasian, 21
of New South Wales, 16
of New Zealand, 21
of Queensland, 18
of South Australia, 18
of Tasmania, 19
of the Northern Territory, 19
of Victoria, 17
of Western Australia, 19
Rate, Birth, of the Colonies, 155
Death, of the Colonies, 156
Marriage, of the Colonies, 158
of Interest on Debt, 338
Ratio of Insanity, 451
Real and Apparent Trade, 37

Reconstruction of Banks, 367
Re-export Trade of the Colonies, 57
Receipts from Passenger Traffic, 81
Recreation Grounds and Parks, 433
Reduction of nominal interest, 339
Registered Letters, 94
Relative position of the Colonies, 24
Importance of Ports, 32
Religion, 138
Church of England, 138
Church of Rome, 138
Presbyterian, 139
Salvation Army, 144
State Aid to, 140
Wesleyan, 139
Religions of Australasia, 141
Renmark, Irrigation at, 118
Repayment of loans, 352
Rescue of the young from Crime, 435
Reserves, Amount of Bank, 366
Resources of Australia, Varied, 28
Mortgaged, 333
Returns from Agriculture, 175
from each class of Stock, 234
of Boards and Trusts, 322
Revenue adjusted, 334
Revenue and Expenditure, 324
from Customs declining, 60
from Lands declining, 330
from Sales of Land, 329
from Services, 324
increase of, 327
not proportionate to Tariff, 328
of 1881 and 1891, 331
per head of Population, 325, 326
Sources of, 325, 328
Revulsion of Credit, 347
Rifle Clubs, 111
Rock Salt, 274
Rome, Church of, 138, 143
Rolling Stock on Railways, 81
Ruby, 278

Saddle and Harness Horses, 229
Sailing and Steam Tonnage, 31
Salts, 274
Sale of Lands, Revenue from, 329
Salubrity of the Climate, 157
Salvation Army, 144
San Francisco Mail Service, 88, 92
Sapphire, 278
Savings Banks, 370, 429
Banks, Deposits in, 430
of the People, 428
Schedules of Insolvents, 431
School Age, 126
Scholars, Enrolment of, 126
Schools in New South Wales, 122
in New Zealand, 124
in Queensland, 123
in South Australia, 123
in Tasmania, 124
in Victoria, 122
in Western Australia, 123
Maori, 125
Private and Denominational, 127
Selections without residence, 388
Settlement of Australasia, 424
Serious Crimes, Number of, 439
Services, Cost of, 335
undertaken by Government, 324
Shale, Kerosene, 272
Sheep-breeding, Progress of, 226
breeding by Macarthur, 223
Country suitable for, 223
Disposal of Surplus, 236
imported in 1823, 225
in each Colony, 226
Value of, 227
Shipping, 22
and Trade of 1892, 64
External, 26
Intercolonial, 29
Movements of, 24
Sickness and Infirmity, 172
Siderite, 262
Silica, 276
Silver, 249
and Silver-lead exported, 251
at Broken Hill and the Barrier, 250
Increased Production of, 251
produced in each Colony, 253
Silverton Silver-mines, 229
Sinking Funds, 319, 330, 338, 343
Social Condition, 428
Sorrento, Settlement at, 3
South Australia, Boundaries of, 10
Climate of, 18
Constitution of, 5
Education in, 123
Founded, 4
Naval Defence, 117
Surplus in, 334
Value of Crops in, 175
South Island, New Zealand, 12
Sources of Revenue, 325, 328
Sown Grasses, 204
Spathic Iron, 262
Spain, formerly chief Woolgrower, 224
Special Areas, 388, 412
Squadron, Australasian, 114
Stamp Duties on Loans, 345
Stamped Envelopes, 87

State Aid to Religion, 140
Aid to Denominational Schools, 121
Assistance to Charities, 434
Expenditure on Education, 128
Schools, Attendance at, 125
Schools, Number of, 125
of Religious Denominations, 141
Standard Weight of Coins, 361
Stannine, 257
Steam and Sailing Tonnage, 31
Stewart Island, 12
Stewart, Superintendent of Port Phillip, 4
Stirling, Captain, at Swan River, 3
Stuart, J. M'Douall, Explorer, 5
Stock-breeding, Commencement of, 221
Carried by each Colony, 222
Carrying capacity of Australasia, 231
in terms of Sheep, 233
Introduced by Captain Phillip, 221
Numbers of, at different periods, 222
of Australasia in 1890, 222
Production-Limit not reached, 232
Return from each Class of, 234
Steamers, Improvement of, 39
Strength of Wines and Beers, 288
Students at Universities, 136
Sugar-cane, 208
Area under, 209
Quantity produced, 210
Suez Mail Service, 88, 92
Suicides, 446
Sullivan's Cove, Settlement at, 2
Summary Convictions, 439
Summer Temperature, 14
Sulphur, 263
Surplus in South Australia, 334
Surrenders and Claims, 373
Supervision of Charities, 434
Suitability of Australia for Sheep, 223
Surplus Sheep, Disposal of, 236
Wheat for Export, 187
Suspension of Banks, 367
Swan River Settlement, 3
Swine, Number and Proportion of, 241
Products of, 241
Sydney, Climate of, 15
Founded, 2
Water Supply and Sewerage, 320
Systems of Land Alienation, 384

Table Grapes, Production of, 206
Table-land, Climate of, 15
Taranaki, Ironworks at, 261
Tariffs, The, 63
Tasmania, Boundaries of, 11
Tasmania, Climate of, 19
Constitution of, 3
Education in, 124
Founded, 2
Tasmanian Coal, 266
Crops, Value of, 175
Naval Defence, 117
Taxation compared with Revenue, 329
Direct and Indirect, 327
Distribution of, 61
Method of, 328
per head, 326
Revenue from, 326
Tea, Large Consumption of, 283
Teachers in Public Schools, 125
Technical College, 130
Education in New South Wales, 130
Education in Queensland, 131
Education in South Australia, 131
Education in Tasmania, 131
Education in Victoria, 131
Instruction, 130
Telegraphs, 95
Business done by, 96
Telegraphic Messages sent, 96
Cables, 97
Telegraph, Electric, introduced, 97
Lines, Length of, 99
Telephones, 100
Tellurium, 249
Temperature of Australasia, 13
of Ballarat, 17
of Bendigo, 17
of Bourke, 16
of Brisbane, 17
of N.S. Wales Coast, 14
of N.S. Wales Table-land, 15
of N.S. Wales Western Division, 15
of New Zealand, 20
of Northern Australia, 14
of Northern Territory, 18
of Rockhampton, 18
of South Australia, 18
of Sydney, 15
of Tasmania, 19
of Victoria, 16
of Western Australia, 19
Texture of Wool, 225
Thermo-dynamic Effects of Food, 285
Thickness of Coal Seams, 267
Time of Mail Steamers, 92
Tin, 257
Fluctuations in Price of, 259
in New South Wales, 258
in Queensland, 259
in Tasmania, 258
Miners, Number of, 260

Tin, Output of, 260
Production of, 260
Titanium, 260
Tobacco, 211
Area and Production of, 211
Consumption of, 286
Importation of, 213
Industry, Decline of, 211
Produced in other Countries, 212
Tonnage at Principal Ports, 32
Australasian, 23
Average, 23
Daily Movements of, 24
Entered and Cleared, 22
External, 26
Foreign Steam, 32
in Ballast, 28
Increase of, 25
Intercolonial, 29
Inwards, 29
Movements of, 24
Nationality of, 34
of British Ports, 34
of each Colony, 25
of Melbourne, 34
of New South Wales, 30
of Sydney, 34
Steam, 31
of United Kingdom, 33
of Victoria, 30
Topaz, 278
Torres Straits Route, 92
Total engaged in Industrial Pursuits, 305
engaged in Professions, 294
Expenditure, 332
of Bread-winners, 309
of Dependents, 310
of Industrial Workers, 311
of Primary Producers, 308
Trade of Australasia, 36, 52
Trade, Australasian, compared, 53
and Shipping of 1892, 63
Balance of, and Loans Expenditure, 55
between Great Britain and Possessions, 49
External, 37, 52
Intercolonial, 50
Internal and External, 52
in Wool direct with Europe, 41
in Wool to Principal Countries, 42
of New South Wales, 53
of Principal Countries, 54
of Principal Ports, 33, 64
of South Australia, 53
of the United Kingdom, 49
Re-export, 57
Total External and Intercolonial, 52
Trade Total, of Australasia, 36, 48
with Belgium, 41
with British Possessions, 39
with China, 45
with Foreign Countries, 40
with Outside Countries, 37
with the Continent of Europe, 40
with the East, 39
with the Islands, 39
with the United Kingdom, 38, 48, 49
with the United States, 45
Tramways, 84
Treasury Bills, 346
Tripoli, or Rotten Stone, 276
Tropical Australia, 13
Trusts and Boards, 319
Tungsten, 260

Underground Water Supply, 218
United Kingdom, Imports into, 49
Tonnage of, 33
Trade with, 38
Trade with Australasia, 49
Trade with Principal Countries, 49
United States, Trade with, 45
Wool exported to, 45
Universities and Colleges, 136
Students at, 136
University Endowments and Fees, 136
Colleges affiliated to, 137
Degrees conferred by, 137
Unmarried, Numbers of, 170

Value and Weight of Gold produced, 129
of Antimony produced, 148
of Articles produced, 196
of Australian Agriculture, 63
of Australasian Gold, 296
of Australasian Trade, 49
of Australasian Wool, 42
of Bismuth produced, 264
of Cattle in Australasia, 228
of Coal produced, 271
of Coinage, 362
of Copper produced, 257
of Dairy Produce, 238
of Domestic Exports, 57
of Eggs and Honey, 242
of Estates, 382
of Exports, 38
of Fuel, 304
of Gold raised, 244
of Imports, 38
of Land, 379
of Manufacturing Plant, 304

Value of Materials used in Manufactures, 304
of Meats exported, 237
of Minerals per Head, 280
of Minerals raised, 281
of Mining Machinery, 247
of Pastoral Property, 233
of Poultry, 242
of Plant, 304
of Primary Production, 312
of Principal Crops, 176
of Public Works, 379
of Sheep in Australasia, 227
of Silver produced, 251
of Swine Products, 241
of Tin Produced, 260
of Wheat in London, 191
of Wheat per acre, 189
of Wool Shipped, 43
Van Diemen's Land Colonised, 3
Vessels entered and Cleared, 22
Registered, 35
Victoria, Boundaries of, 9
Climate of, 16
Constitution of, 3
Deep Mines in, 247
Education in, 122
first Settled, 3
led in Population, 149
separated from New South Wales, 4
Tonnage of, compared, 34
Victorian Crops, Value of, 175
Irrigation Works, 318
Navy, 116
Nuggets, 248
Water Supply Works, 318
Village Settlement, 390, 401, 422
Vine, Area under, 206
Growing, History of, 205
Virgin Copper, 256
Volunteer System unsatisfactory, 111

Wages paid, 304
Waira Massacres, 6
Waitangi, Treaty of, 6
Wakefield Land System, 384, 403, 417
War Vessels on Station, 113
Water and Sewerage Works, 318
Supply and Irrigation Works, 318
Wealth, per head, 379
Private, 378
of each Colony, 381
of Principal Countries, 379
Weight and Value of Gold produced, 245
of Wool Clip, 235
Wellington settled, 6
Western Australia, Boundaries of, 11
Climate of, 19
Constitution of, 3
Education in, 123
Responsible Government in, 3
Settled, 3
Value of Crops of, 175
Western Division, Climate of, 15
Wesleyans, 139
Wheat, 184
Area under, 185
Consumed per head, 192
Consumption of, 188, 192, 282
Crop of the world, 191
Growing, Progress of, 185
Import and Export of, 187
Produced in each Colony, 185
Surplus, for Export, 188
Widowed, 170
Wine, Export of, 207
Produced in other Countries, 206
Production of, 206
Trade with Europe, 207
Winter Temperature, 13
Wiremu Kingi, 6
Wolfram, 260
Wollongong Harbour Trust, 320
"Wolverene," The, 116
Wool, Australian, Value of, 42
Export of, 63, 234
Export of from each Colony, 43, 44, 234
Exported *via* Melbourne, 43, 236
Exported *via* Sydney, 234
Price of Greasy, 235
Sales in the Colonies, 45
Texture of, 225
Trade with the Continent, 42
Trade direct with Europe, 41
Trade with United Kingdom, 225
Value of, 43, 235
Workers in each Colony, 311
Working Expenses of Railways, 75
Men's Blocks, 408
World, Wheat Crop of the, 191
Wine Production of, 206

Yield of Gold from Quartz, 246
of Wheat in other Countries, 191

Zinc, 260
Zircon, 278

SYDNEY:
CHARLES POTTER, GOVERNMENT PRINTER.

1893.